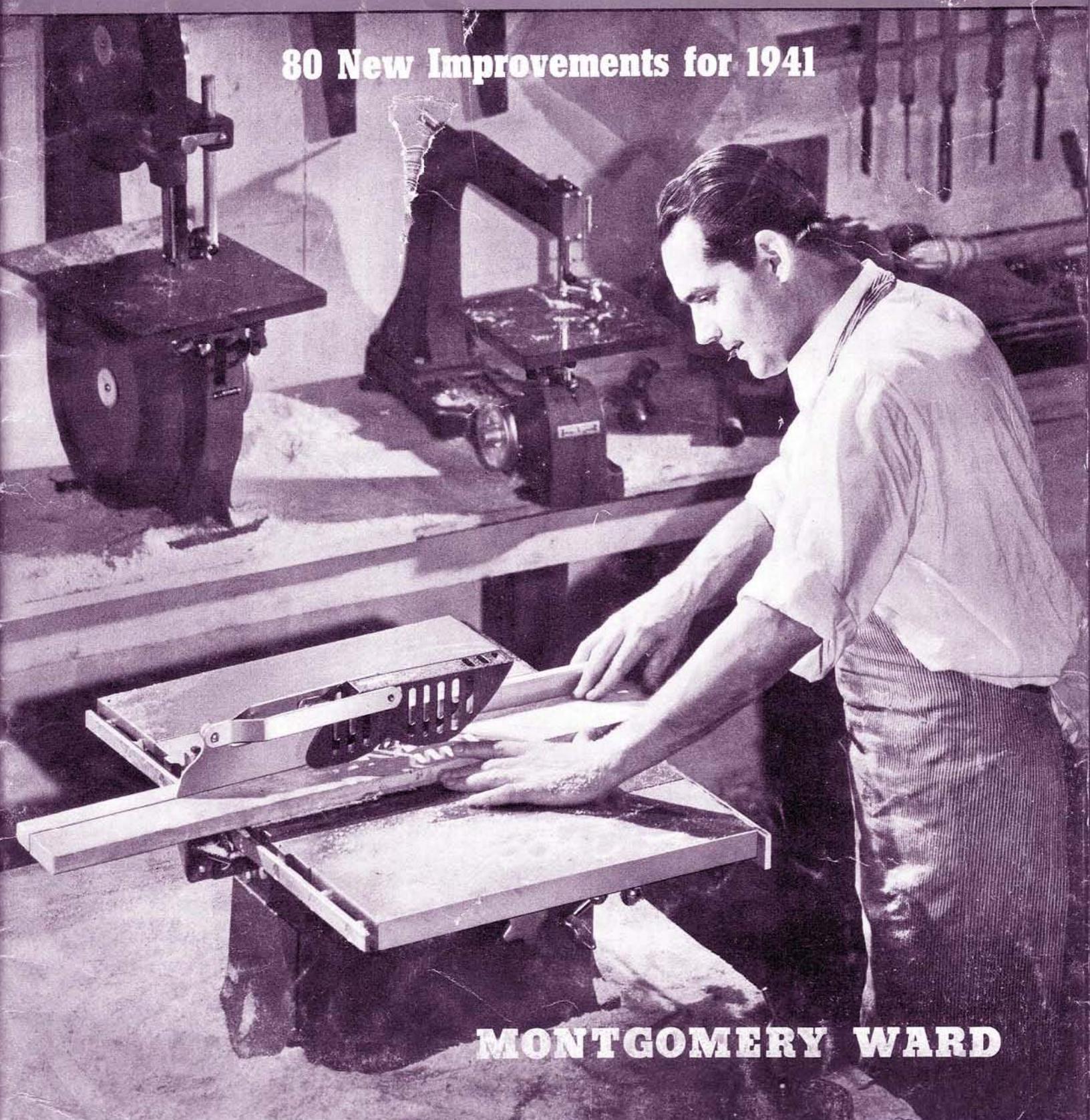


POWR-KRAFT

BETTER POWER TOOLS

80 New Improvements for 1941



MONTGOMERY WARD

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Time Payment

Don't let a cash shortage stop you from buying those power tools NOW, when you need them! Start a Time Payment Account at Wards on any purchase of \$10 or over! Only \$2 down, the balance monthly. Carrying charge on unpaid balance only.

Better Power Tools!

COMPARE WARDS TOOLS WITH THE MOST EXPENSIVE YOU CAN BUY

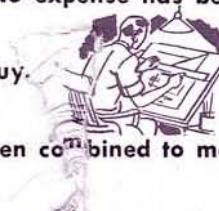


Even the hidden parts of the new 1941 Powr-Kraft tools are manufactured with extra-precision. No expense has been spared to give you the best power tools that money can buy.

The latest in mechanical features and streamlining have been combined to make Wards power tools the best ever. Every part in Wards power tools is made of the highest quality materials. Regardless of how small the part, each one must pass exacting laboratory standards.



Thousands of satisfied customers using Wards Powr-Kraft tools testify as to their durability and high quality.



...at lower prices!

BUY AN EXTRA TOOL WITH THE MONEY YOU SAVE AT WARDS!



Here's why Wards can sell BETTER quality power tools for LESS. Wards method of doing business is ECONOMICAL! The manufacturer saves

when he SELLS to Wards (no salesmen, no

credit losses, no "extra"



advertising costs, no



costs). Wards cost of doing business

is ALSO less, because it is done in huge quantities (650 Retail

Stores and 9 Mail Order Houses). It's perfectly natural that



Wards economical way of doing business results in EXTRA SAVINGS. These savings

are passed on to YOU... part in EXTRA QUALITY and part in LOWER PRICES!

Imagine! A complete HOME WORKSHOP

for only

39⁹⁵

\$4 DOWN, \$5 MONTH
Carrying Charge

Less
Motor



Here's What You Get . . .

7-INCH BENCH SAW

No. 84-885. Has miter gauge and rip fence. Complete information on page 4.

12-INCH JIG SAW

No. 84-871. It has Torsion-type Spring. Learn more about this saw on page 8.

GAP-BED LATHE

No. 84-636. Complete with built-in grinding wheel, sanding, drilling parts.

STEEL WORK BENCH

It's rigid; won't vibrate. Rubber cushioned feet. 66 in. long, 22½ in. wide.

WOODWORKING CHISELS

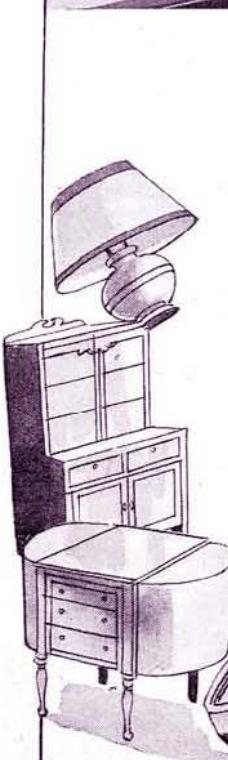
Chisels include ½-in. gouge, ¼-in. skew, and parting tool. Vanadium steel.

ASSEMBLING PARTS

All necessary belts, pulleys, shafts, bolts, arbors, nuts and washers.

ACCESSORIES INCLUDED

Package sanding discs, package of 12 jig saw blades, and drilling chuck.



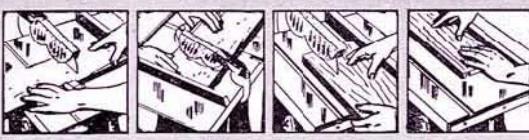
The most complete workshop we know of . . . priced lower than we ever thought possible! Not a plaything . . . but a man-sized outfit of regulation Powr-Kraft tools. Do sawing, turning, drilling, grinding, sanding . . . make furniture, lamps, toys . . . enjoy a profitable and useful hobby with this complete Home Workshop. It's designed for greatest convenience to operator; all tools are operated from line shaft and motor mounted below top of bench, down out of the way. Gives greater working space.

84-595—Complete Home Workshop outfit described above, less Motor. Shipping weight 185 pounds **39.95**

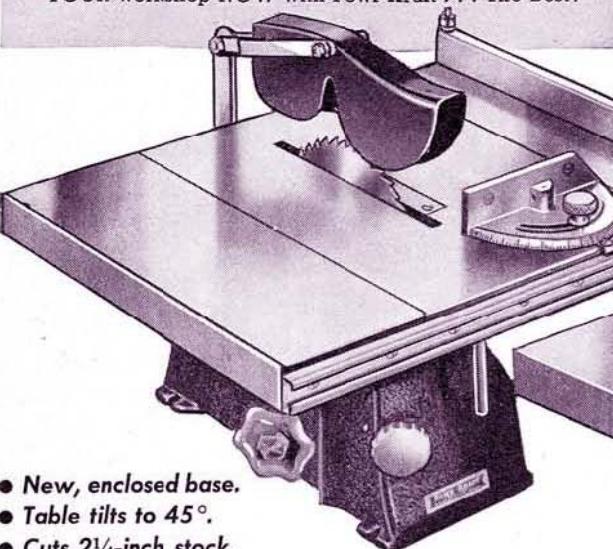
84-596—Complete Home Workshop outfit above, with 84-9861, ½-H.P. Split-Phase Motor on page 28 **49.50**

← Make these and
a score of
other things
with this
Workshop.

JOBs YOU CAN DO WITH A BENCH SAW:-



The bench saw is the primary machine of a home workshop, and does all the sawing operations listed above. It's the workshop tool you will want to buy first. Start YOUR workshop NOW with Powr-Kraft . . . The Best!



- New, enclosed base.
- Table tilts to 45°.
- Cuts 2 1/4-inch stock.

10⁹⁵
\$2 DOWN, \$2 MONTHLY

IMPROVED 7-INCH SAW

Improved appearance . . . easier-to-get-at table controls. 10x14-in. cast table has removable insert for dado head. Rigidly braced rip fence. Improved steel fence guide. Miter gauge. Approved safety guard, with splitter. Self-lubricating bronze bearings. ½-in. spindle arbor. 7-in. combination saw blade. 1 ¾-in. "V" pulley.

84 R 758—Saw only **10.95**
84 R 759—With Steel Table Extensions, increases area to 20 x14-in. **13.45**

19²⁵
\$2.50 DOWN, \$3 MONTHLY

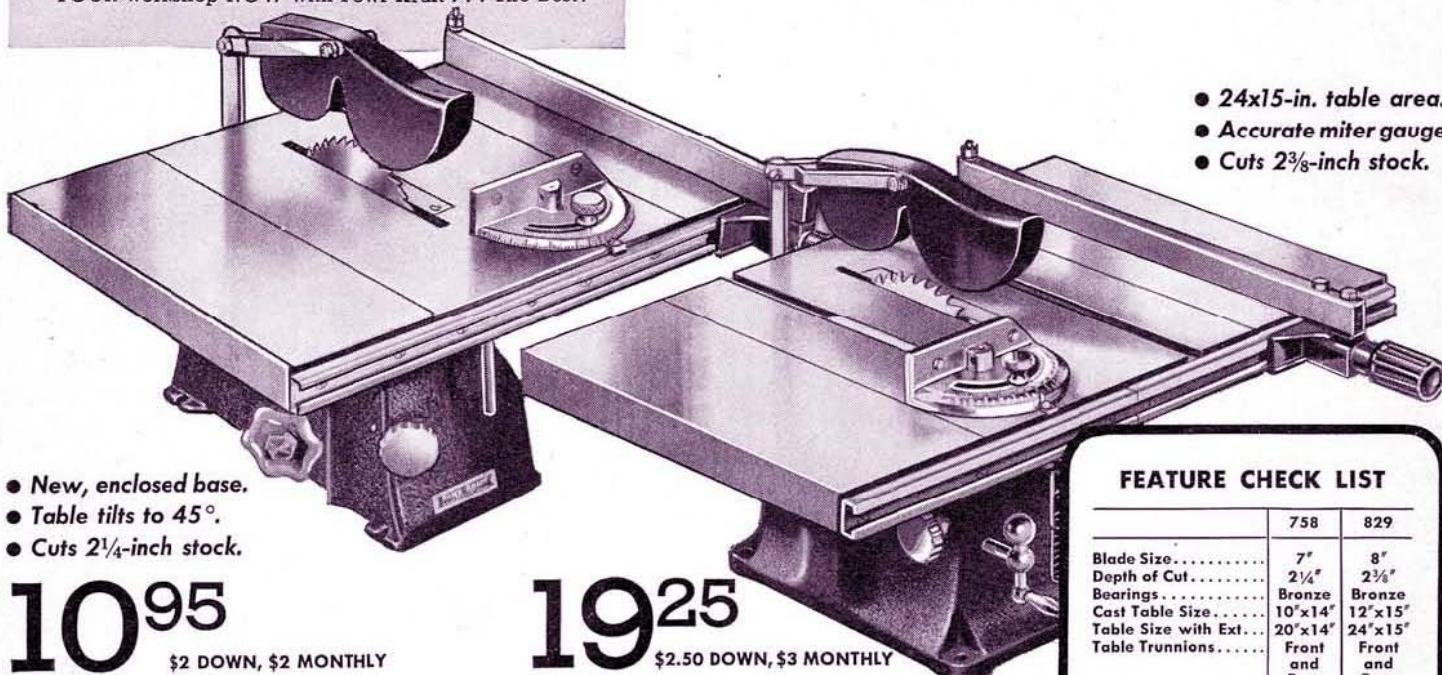
8-INCH BENCH SAW

This saw has many features of our heavy-duty machines, yet is priced amazingly low. Large 24x15 table area (with extensions). Table tilts on husky double trunnions, locks at any angle up to 45 degrees. Ball crank and gear, plus compensating spring, permits gradual raising or lowering of table (no belt adjustments necessary).

84 R 829—Saw only **19.25**
84 R 873—With No. 9861 ½-H.P. Motor, 4-in. V-pulley and 44-in. V belt **29.75**

Powr-Kraft BENCH

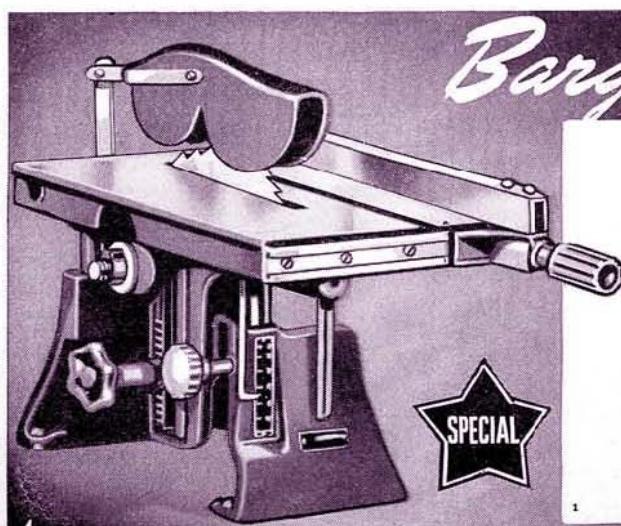
Repair parts for POWR-KRAFT tools
are always available at Wards.



- 24x15-in. table area.
- Accurate miter gauge.
- Cuts 2 3/8-inch stock.

FEATURE CHECK LIST

	758	829
Blade Size.....	7"	8"
Depth of Cut.....	2 1/4"	2 3/8"
Bearings.....	Bronze	Bronze
Cast Table Size.....	10"x14"	12"x15"
Table Size with Ext.....	20"x14"	24"x15"
Table Trunnions.....	Front and Rear	Front and Rear
	45°	45°
Tilting Adjustment.....		
Clearance Ahead of Blade.....	4 1/16"	5 1/4"
Spindle.....	1/2"	5/8"
Drives.....	From below or behind	From below or behind
	3250 R.P.M.	4000 R.P.M.
Speed Recommended.....	1/2 H.P.	1/3 H.P.
Motor Recommended.....		
Machine Pulley Supplied.....	1 1/4"	1 1/4"
Motor Pulley Recommended.....	3 1/4"	4"



Bargain! **7-INCH BENCH SAW**

8⁹⁵

- Miter Gauge
- Rip Fence
- 10x14 in. Table

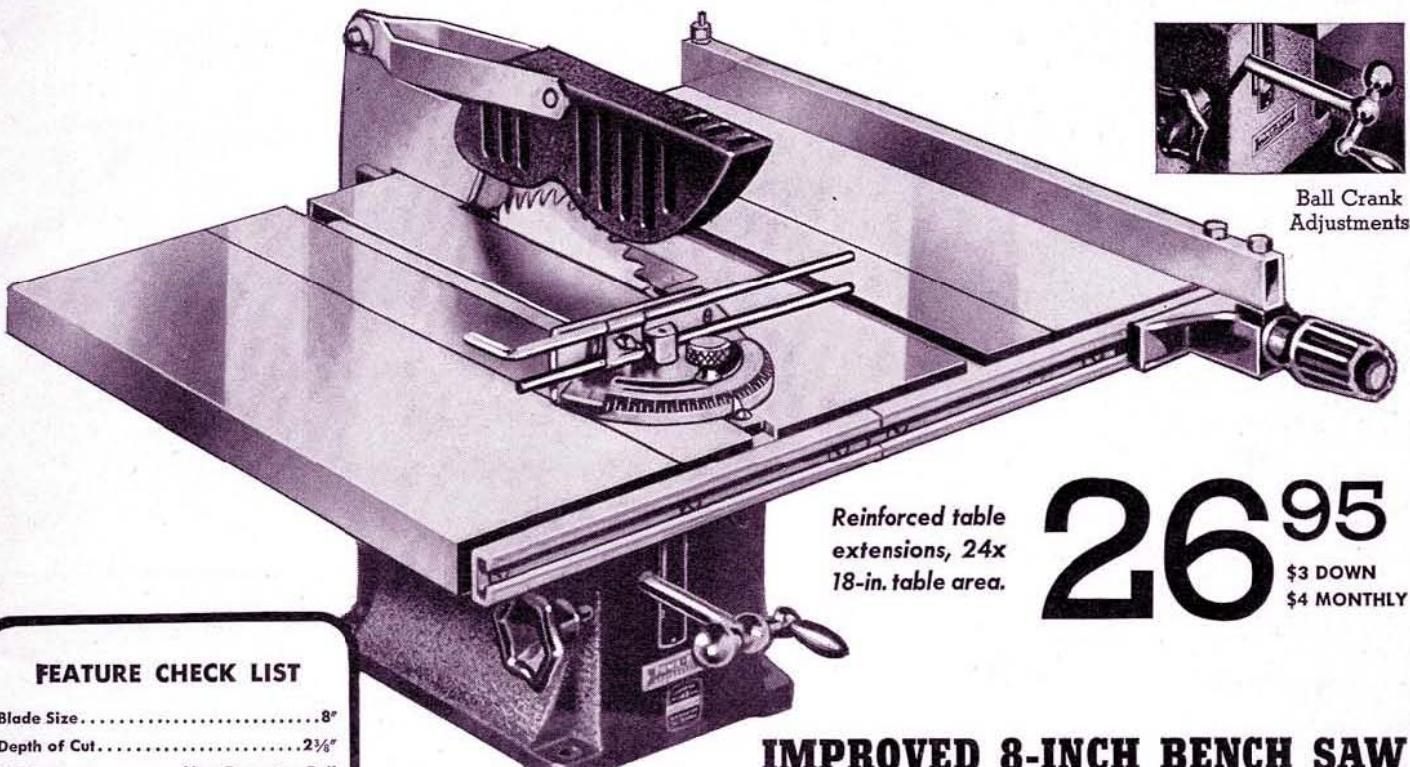
IT'S PRECISION BUILT

Ideal for the beginner, who is changing from hand tools to a power workshop. Rips, cross-cuts, miters, grooves. Table rides on double, machined steel posts, not single! With 1 ¾-in. "V" pulley. Can be driven from below or behind. Open base, otherwise same as No. 758 above.

84 R 885—Saw only **8.95**

84 R 872—With Steel Table Extensions, increases the table area to 20 by 14 inches **11.45**

SAWS at Amazing Low Prices!

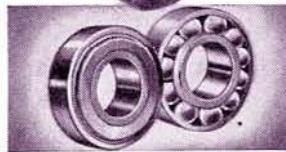


Reinforced table
extensions, 24x
18-in. table area.

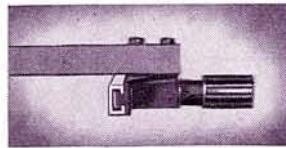
26⁹⁵
\$3 DOWN
\$4 MONTHLY

FEATURE CHECK LIST

Blade Size	8"
Depth of Cut	2 3/8"
Bearings	New Departure Ball
Cast Table Size	12" x 18"
Table Size with Extension	24" x 18"
Table Trunnions	Front and Rear
Tilting Adjustment	45°
Clearance Ahead of Blade	7 1/2"
Ground Steel Spindle	5/8"
Drive	From Below or Behind
Speed Recommended	3890 R.P.M.
Motor Recommended	1/3 H.P.—1750 R.P.M.
Machine Pulley Supplied	2 1/4"
Motor Pulley Recommended	5"
Mounting Dimensions	7 1/2" x 11 1/4"
Recommended Mounting Stand No.	84-8791



Grease sealed New Departure ball bearings.



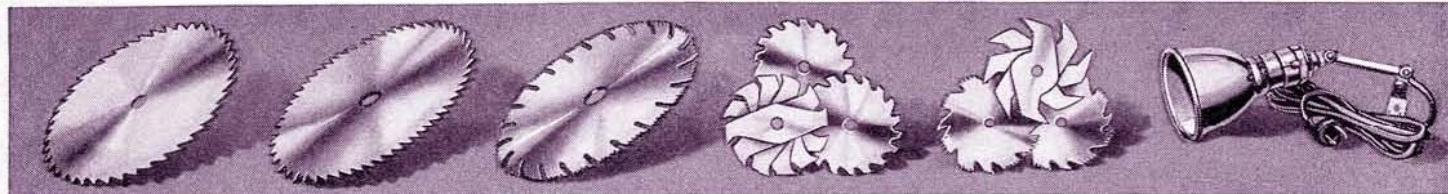
Improved, rigidly braced channel iron rip fence.

IMPROVED 8-INCH BENCH SAW

Others ask dollars more for this quality. Extra large cast-iron table with reinforced steel extensions . . . tilts on heavy double trunnions to 45° angle . . . gauge shows degree of tilt. Table insert removable for dado head. Compensating spring permits easy adjustment of table . . . prevents backlash. Anti-kick attachment prevents "kick-backs." Approved safety guard meets all State safety codes. Accurate miter gauge has cut-off rods. Spindle with 5/8-in. arbor. Table has 7 3/4-in. clearance ahead of blade. Finest quality rip and cross-cut blade.

84 R 683—Saw only **26.95**

84 R 682—With No. 9861 1/3-H.P. Motor, 5-inch V-Pulley and 44-inch V-Belt **37.50**



COMBINATION SAWS

Fine quality crucible alloy steel with sharp teeth. Carefully tempered, hand filed, hammered and set . . . no binding or buckling. Cut fast, clean and smooth in any kind of wood. Will rip or cross-cut. **84 R 284**.

CROSS-CUT SAWS

Specially refined saw steel, tougher, holds keen cutting edge longer. Oil tempered in electrically controlled furnaces. Hand hammered for perfect balance, filed and set. Deep sawdust freeing gullets. **84 R 260**.

COMBINATION SAWS

Hollow ground. Specially refined saw steel, hardened and heat treated. 3 gauge taper ground, hand hammered, won't bind. Cross-cuts, rips and miters. Polished finish. Runs without set, makes smooth cut. **84 R 268**.

DADO SAWS

For grooving and rabbeting. Heat treated and tempered. Complete set consists of 2 outside blades and 6 inside chippers. 4-inch set has 1/2-inch diameter bore, 5-in. set has 5/8-inch bore. All are made from alloy steel.

6-INCH DADO SET

Precision ground, correctly heat-treated and tempered tool steel for smooth cutting. Standard 5/8-inch bore for 8 and 10-in. tilting arbor saws only. Complete set consists of 2 outside blades each about 1/8-inch thick and 4 inside chippers . . . 2 are 1/8-inch thick, 1 is 1/4-inch thick and one is 1/16-inch thick. Use on bench saws for grooving and rabbeting. **84 R 778**—Complete set **8.95**

ADJUSTABLE LIGHT

Helps you do more accurate work . . . saves your eyes. Has highly polished reflector. The end plate is designed for attaching to any convenient bolt or screw. Can be used especially well on band saws, jigsaw and drill presses. Length overall about 10 inches. Takes 25 watt bulb (not furnished). Aluminum reflector has push key socket. 8-ft. rubber covered cord and plug. **84 R 8866** **1.25**

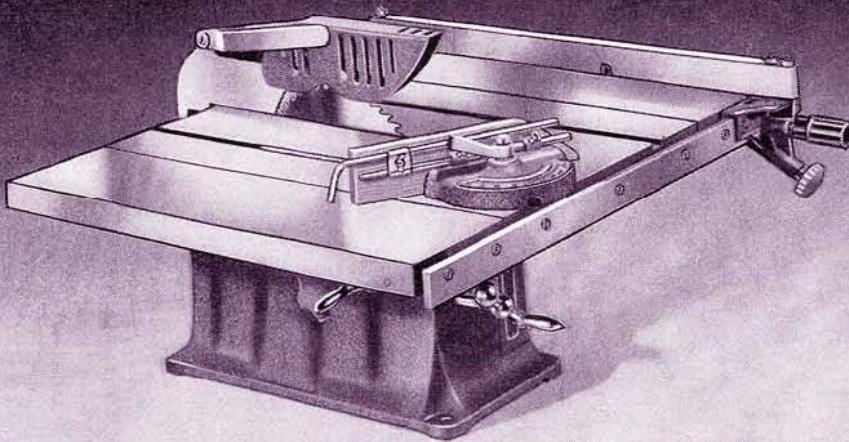
Diam. In.	Ga.	Size Hole	Each
6	18	1/8 in.	\$1.00
7	18	1/2 in.	1.29
8	18	5/8 in.	1.49

Diam. In.	Gauge Steel	Size Hole	Each
7	18	1/8 in.	\$1.29
8	18	5/8 in.	1.49
10	16	5/8 in.	1.85

Diam. In.	Gauge Taper	Size Hole	Each
7	15 to 18	1/8 in.	\$2.75
8	15 to 18	5/8 in.	3.15
10	14 to 17	5/8 in.	4.15

Here it is!

WARDS SENSATIONAL TILTING



10-INCH TILTING TABLE BENCH SAW

A real production saw that's precision built... perfectly balanced... smooth running. New Departure ball bearings. Table has extra-large 27x23 working area. Cuts stock up to 3 1/4-inch thick. Has miter gauge and rip fence plus specifications listed below. 84 R 692.

44⁵⁰
\$5 DOWN

\$5 MONTHLY, Carrying Charge

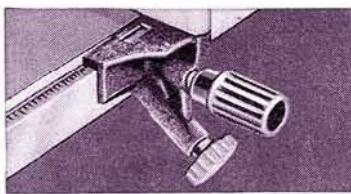
8-INCH TABLE SAW

A heavy-duty ball-bearing saw for the small manufacturer and home workshop. It has all the features of the 10-inch saw above but is smaller in size. Cuts stock up to 2 3/8-inch thick.

84 R 690—Saw only. Table area 27x19-inch..... 37.25

FEATURE CHECK LIST

	690	692
Blade Size.....	8"	10"
Depth of Cut.....	2 3/8"	3 1/8"
Bearings.....	New Departure Ball	New Departure Ball
Cast Table Size..	15"x19"	15"x23"
With Extensions ..	27"x19"	27"x23"
Table Mounting ..	Double Trunnions	Double Trunnions
Tilting Adjustment ..	45°	45°
Clearance Ahead of Blade.....	7 1/16"	10 1/4"
Spindle.....	5/8"	5/8"
Drives.....	From Below or Behind	From Below or Behind
Speed Recommended.....	3890 R.P.M.	3200 R.P.M.
Motor Recommended.....	1/2 H.P.	1/2 H.P.
Saw Pulley Supplied.....	2 1/4"	2 1/4"
Motor Pulley Recommended....	5"	4"
Mounting Dimensions of Saw....	7 5/8"x 16 5/16"	7 5/8"x 16 5/16"



Micro-set rip fence has patented slide...moves smoothly; no binding; operates on either side of blade.

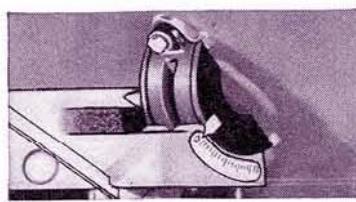


Table mounted on precision built double trunnions, table will tilt and lock to any angle up to 45°.

Saw blade tilts to 45-degree angle. Work always lies flat.

Exclusive micro-set rip fence operates smoothly; no binding.

Grease-sealed New Departure ball bearings.

Precision-built miter gauge cuts angles accurately.

ARBOR PRODUCTION SAW



New 10-in. Tilting Arbor Floor Model. Large 30 by 27-inch Table Area. NEW DEPARTURE Ball Bearings. 12 $\frac{1}{4}$ " in front of blade.

69⁹⁵

\$6 DOWN
\$7 MONTHLY
Carrying Charge

- Cuts 3 $\frac{3}{8}$ -in. stock — $\frac{3}{8}$ -in. more than some others.
- Rip fence fastens front and back... Patented micro-set for accurate setting of fence.

For professional craftsmen and large industrial shops. Stand has cast-iron corner supports enclosed in heavy stamped steel. Full 12 $\frac{1}{4}$ -in. clearance in front of blade. The double trunnions, raising and tilting mechanisms are carefully machined and balanced for smooth operation. Motor mounts back of saw and tilts with arbor.

The alloy-steel spindle has $\frac{5}{8}$ -in. arbor, and is equipped with 10-in. crucible steel combination rip and cross-cut saw blade. Plus all these features which craftsmen appreciate:—removable table insert for dado heads, exclusive micro-set rip fence, approved safety tilting guard and splitter, accurate miter gauge with cut-off rods, sawdust chute and improved anti-kick back attachment. Complete with 2 $\frac{1}{4}$ -in. V-Pulley. Height to top of table 35 $\frac{1}{2}$ inches.

84 R 761—Saw only with extensions 69.95

84 R 762—With No. 9815 $\frac{1}{4}$ -H.P. Motor, 4-in. V-Pulley and 42-in. V-Belt 99.95

*Easy Terms
on Orders of
\$10 or More!*

FEATURE CHECK LIST

	761	764
Blade Size.....	10"	8"
Depth of Cut.....	3 $\frac{3}{8}$ "	2 $\frac{3}{8}$ "
Bearings.....		
Cast Table Size...	New Depart-	New Depart-
Table Size with Ext.	ture Ball	ture Ball
Table Mountings.	18"x27"	15"x23"
Depth Adjustment	30"x27"	27"x23"
Tilting Adjustment	Double	Double
Clearance Ahead of Blade.....	Trunnions	Trunnions
Spindle.....	Ball Crank	Ball Crank
Drive.....	45°	45°
Speed Recommended.....	12 $\frac{1}{4}$ "	10 $\frac{3}{4}$ "
Motor Recommended.....	$\frac{5}{8}$ "	$\frac{5}{8}$ "
Saw Pulley Supplied.....	From Below	From Below
Motor Pulley Recommended.....	and Behind	and Behind
	3200 R.P.M.	3890 R.P.M.
	$\frac{3}{4}$ H.P.	$\frac{1}{2}$ H.P.
	2 $\frac{1}{4}$ "	2 $\frac{1}{4}$ "
	4"	5"

8-IN. TABLE SAW

Tilting
Arbor
46⁷⁵

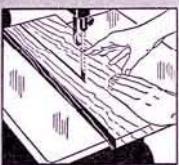
Our finest table-model saw. It's ideal for the craftsman or light manufacturing. General features are the same as floor model above, except the following: Table top area is 27 x 23 inches, clearance ahead of blade is 10 $\frac{1}{4}$ inches. Has 8-inch combination blade which cuts stock up to 2 $\frac{1}{4}$ -inch thick.

84 R 764—Ship. wt. 115 lbs... 46.75

84 R 765—With No. 9842 $\frac{1}{2}$ -H.P. Motor, 37 in. V-Belt & Pulley... 62.25



JOBs YOU CAN DO WITH A JIG SAW:



STRAIGHT

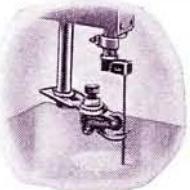


CIRCULAR



SCROLL

No shop is complete without a Jig Saw. It is essential for the fine sawing jobs, and is the only saw that will cut inside curves.



BLADE GUIDE

Hardened steel roller guide. The supporting arm adjusts to depth of cut.

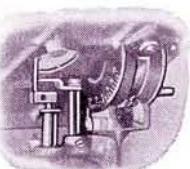


TABLE TRUNNIONS

Table mounted on big trunnions with double ways machined in the casting.



JIG SAW FILES

Do away with those slow tedious hand filing jobs. Refined saw file steel—hardened and tempered. Sharp cut teeth. For Wards 16 or 26-in. jig saws.

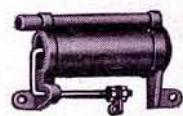
84 R 8926—Files for wood. Shapes 1, 2, 3, 4, 5 or 6.....**59c**

84 R 8927—Files for metal. Shapes 1, 2, 3, 4, 5 or 6.....**59c**

FEATURE CHECK LIST

Capacity.....	16"
Table Size.....	10"x10" Cast Iron
Table Support.....	Double Trunnions
Tilting Adjustment.....	45° one way; 30° other way
Crank Shaft Assembly.....	..... Hardened Steel and Nickel Babbitt
Spring.....	..... Cantilever Type
Chuck-Hardened Steel.....	..... Universal-90° Adjustment
Bearings.....	Bronze
Blade Guide.....	Adjustable Roller with Spring Hold Down
Speed Recommended.....	1065 R.P.M.
Motor Recommended.....	1/4 H.P. 1750 R.P.M.
Machine Pulley Supplied.....	4"
Motor Pulley Recommended.....	2 1/2"
Blower.....	No. 84-756
Upper Arm.....	Removable

POWR-KRAFT JIG



SAWDUST BLOWERS

84 R 768 —For 12 and 15-inch model saws.....	45c
84 R 756 —For 16 and 26-inch model saws.....	45c

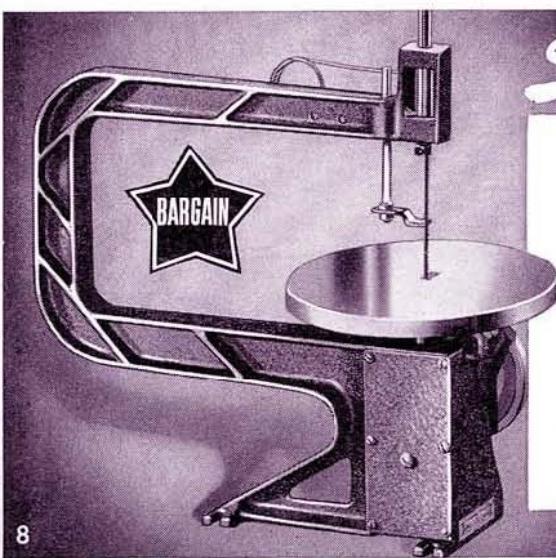


2125

\$3 DOWN
\$3 MONTHLY

IMPROVED 16-INCH SAW

Built for professional work. Hardened alloy steel and nickel babbitt crankshaft (not ordinary die cast parts) runs in oil bath. Saws to the center of a 32-inch panel . . . remove upper arm for unlimited capacity. Self lubricating bronze bearings with extra bearing added to crankshaft. 10 x 10-inch cast iron table tilts on double trunnions up to 45° one way, 30° the other way—accurate tilt gauge. File chuck included. Complete with 4-inch V-pulley.
84 R 769—16-inch Jig Saw only.....**21.25**
84 R 770—With No. 9854 1/4 H.P. Motor, 2 1/2-in. pulley and 33-in. belt.....**28.50**



Special! 12-INCH JIG SAW

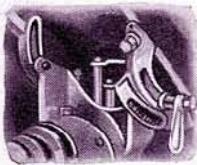
5 45

- Runs in oil bath
- Torsion-type spring
- Table tilts to 45°

Saws easily to the center of a 24-inch panel. Tempered Nickel-Steel Cam bears on cast cross head with fiber insert . . . lasts longer than die cast parts. 8 1/2-in. diameter table has accurate tilt gauge and tilts on double supports. Adjustable blade guide and hold-down foot. Use 5-in. plain end blades.

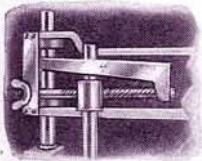
84 R 871—12-inch Jig Saw, 4-in. pulley . **5.45**

SAWS MORE FEATURES FOR YOUR MONEY



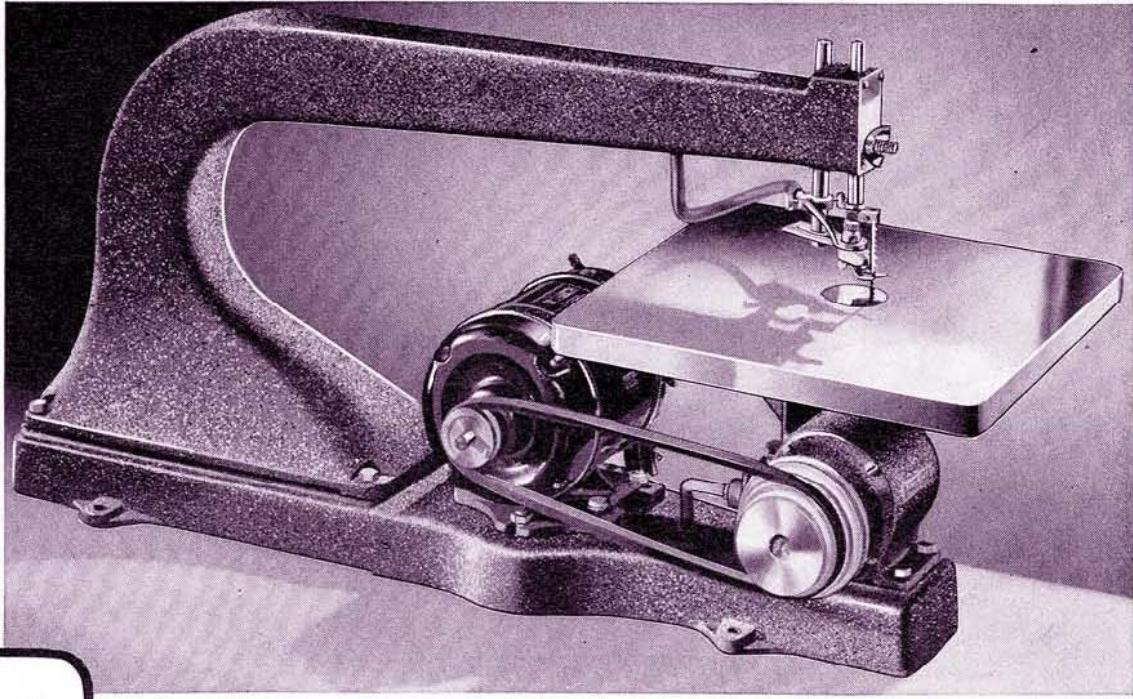
DOUBLE TRUNNIONS

Table tilts on new, huskier, double trunnions to 45 degrees one way, 12° other.



TENSION ADJUSTMENT

Spring blade adjustment keeps blades at proper tension . . . reduces breakage.



FEATURE CHECK LIST

Capacity.....	26"
Cast Table Size.....	15"x15"
Table Support.....	Double Trunnions
Tilting Adjustment.....	.....45° one way; 12° the other way
Crank Shaft Assembly.....	.....Hardened Steel and Nickel Babbitt
Spring.....	Cantilever Type
Chuck-Hardened Steel.....	.....Universal-90° Adjustment
Bearings.....	Bronze
Blade Guide.....	Adjustable Roller with Spring Hold Down
Speeds Recommended.....	.....4—690 to 1750 R.P.M.
Motor Recommended.....	1/4 H.P. 1750 R.P.M.
Motor Pulley Supplied.....	4 1/2"—4 step
Motor Pulley Recommended.....	.....No. 9960—4 step
Blower.....	Detachable No. 84-756
Upper Arm.....	Removable

32 50
\$4 DOWN
\$5 MONTH

- Saws to the center of a 52-in. panel . . . remove upper arm for unlimited capacity.
- Extra bronze bearing added to crankshaft.

IMPROVED 26-IN. JIG SAW

Built for heavy production work. Heavily ribbed 15 by 15-inch machined cast iron table tilts on new, huskier double trunnions. New, easier to read depth gauge. Crankshaft runs in bath of oil. Blade travels on edge (not side) of hardened-steel roller guide. Chuck for files included.

84 R 775—Saw with 4 step V pulley.....	32.50
84 R 776—With No. 9854 motor, pulley and V belt.....	39.95
84 R 9960—4 Step Motor Pulley, for above saw, 1/2" bore.....	.75c



Fit any saw

Highest quality steel. About 5" long. For jig and scroll saws.

84 R 8784—Plain end, 10 or 15 teeth per inch. Pkg. of 12.....15c

84 R 8783—Plain end, 18 teeth per inch. Package of 12.....35c

84 R 8785—Plain end, assorted sizes. Package of 12.....29c

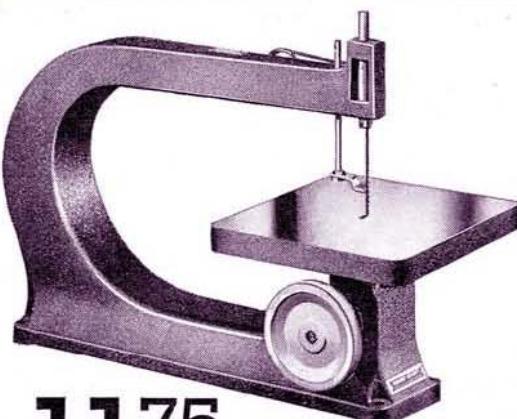
84 R 8774—Pin end, 20 teeth per inch. Package of 12.....35c

84 R 8775—Pin end, assorted sizes. Package of 12.....35c

Saber Blades—About 5 in. long.

84 R 8781—3/8 inch wide. Package of 3 blades.....19c

84 R 8780—Assorted sizes. Package of 12 blades.....55c



11 75
\$2 DOWN, \$2 MONTHLY
CARRYING CHARGE

Reinforced... Box Type Frame
Mechanism Enclosed in Oil Bath

15-INCH JIG SAW

Cuts to center of 30-inch panel. Has improved built-in blower. Heat-treated cam action with fiber lined cross head. Torsion-type spring on upper shaft, compression spring on lower. 9x9-in. table tilts to 45°. With 4-in. V pulley.

84 R 839—15-inch Jig Saw. Use 2-in. pulley on motor.....	11.75
--	-------

JOB'S YOU CAN DO WITH A BAND SAW:-



STRAIGHT

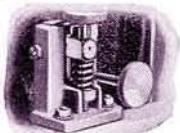


CIRCULAR

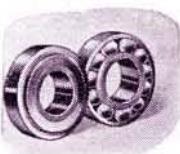


ANGLE

The band saw is made for light or heavy sawing jobs, and is especially suitable for sawing outside curves.



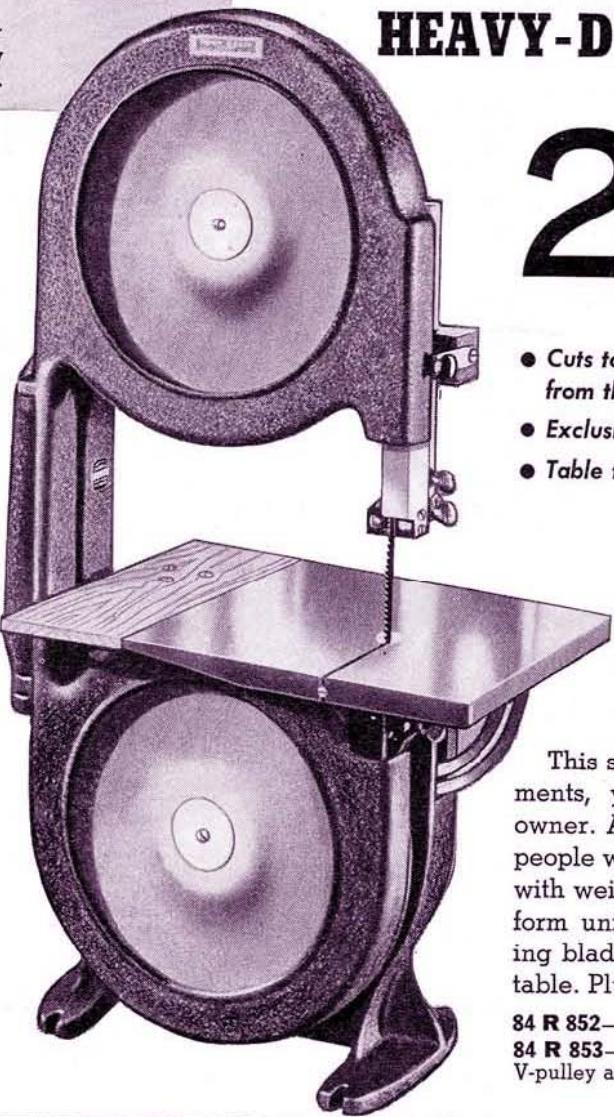
ADJUSTMENTS
Spring adjustment on upper wheel regulates the tension on band saw blade.



BEARINGS
Equipped with famous, grease sealed New Departure Ball Bearings.

FEATURE CHECK LIST

Capacity	12½"
Depth of Cut.....	6"
Table Size.....	12" x 12"
Table Size with Wood Extensions	16½" x 12"
Table Support.....	Double Trunnions
Tilting Adjustment.....	45°
Bearings.....	New Departure Ball
Rubber Crowned Wheels.....	12½"
Wheel Guard....	Hinged one-piece cast iron
Blade Guides.....	Adjustable rollers Above and Below Table
Tension Adjustment.....	Hand Knob
Length of Blade.....	.78"
Width of Blade.....	¼"
Speed Recommended.....	673 R.P.M.
Motor Recommended.....	½ H.P. 1750 R.P.M.
Machine Pulley Supplied.....	6½"
Motor Pulley Recommended.....	2½"



12½-INCH

HEAVY-DUTY BAND SAW

29⁹⁵

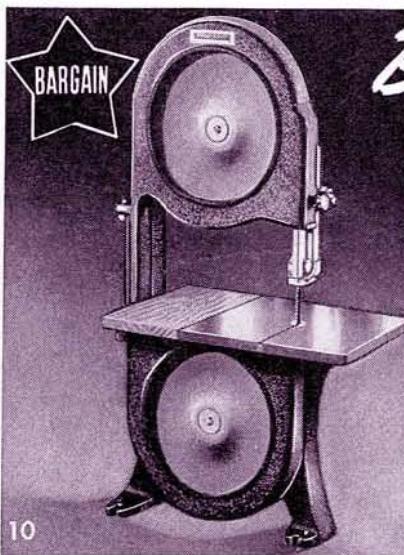
\$3 DOWN, \$4 MONTHLY
Carrying Charge

- Cuts to center of 25-inch circle and cuts stock from thinnest plywood to 6-in. thick.
- Exclusive concave roller blade guides.
- Table tilts to 45° on double trunnions.

- Has a heavy one-piece cast iron guard which opens easily (by loosening one screw) for making quick changes of the band-saw blade.

This saw is built to professional requirements, yet priced for the average shop-owner. A tool that's twice as strong as most people would consider "strong enough" . . . with weight, rigidity and smoothness to perform unfailingly. Concave rollers for guiding blade above and below the 16½x12-in. table. Plus features at left.

84 R 852—Band Saw only with blade 29.95
84 R 853—With No. 9861 ¼ H.P. Motor, 2½-in. V-pulley and 39-inch V-belt 39.95



Best Seller! 9½-INCH BAND SAW

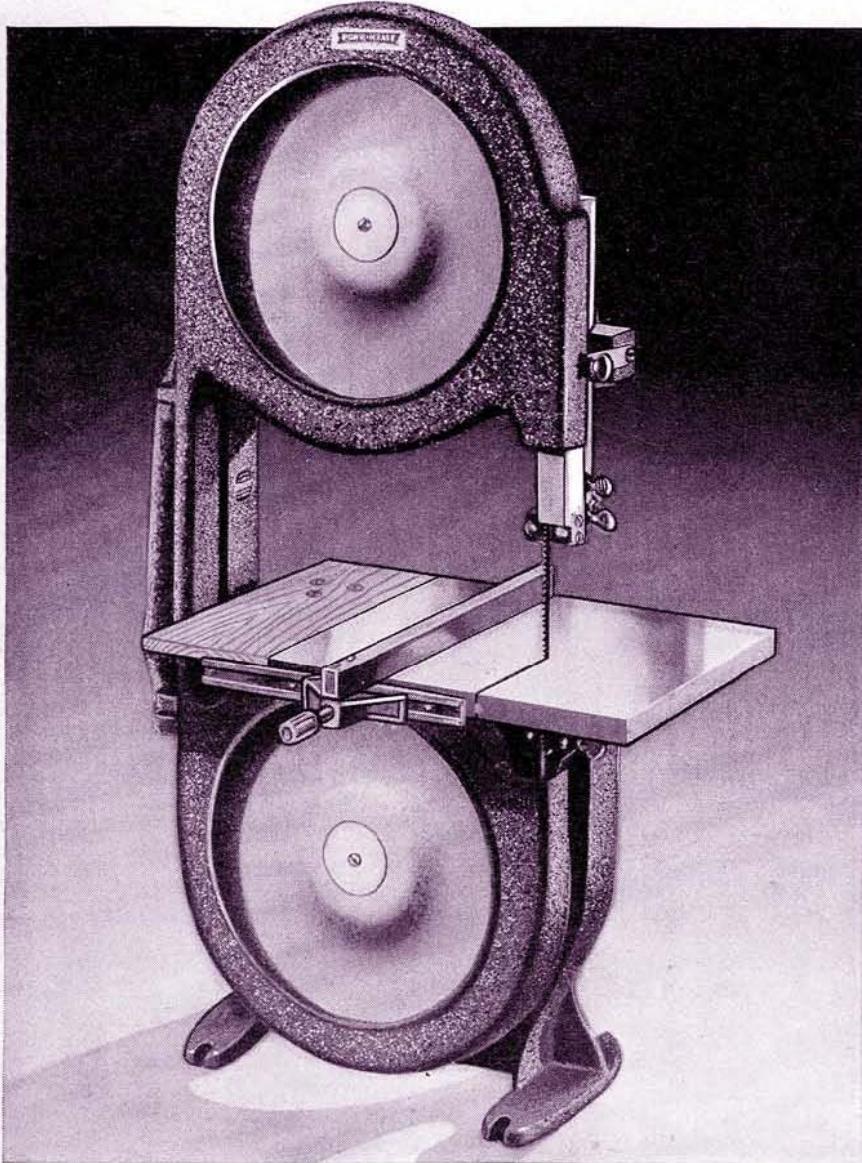
16 25
\$2.50 DOWN
\$2 MONTHLY

- Cuts to center of 19-in. circle in stock up to 4½ inches thick.
- 9x9-in. cast table.

An extra-fine saw for the home workshop where a large capacity tool is not necessary. It rips, cross-cuts and cuts all types of outside curves. 13½ x 9-in. table area with extension. 9½-in. rubber crowned wheels. Self lubricating bronze bearings. Table tilts to 45°. Has 60-in. blade. Run at 875 R.P.M.

84 R 845—Band Saw only 16.25
84 R 858—With No. 9854 ¼ H.P. Motor, 2-inch V-pulley and 39-inch V-belt 23.25

SAWS at Less Than You'd Expect to Pay!



BAND SAW BLADES

Proper gauge for all average work. Electric butt welded. Correctly heat treated, tempered, filed and set.

STANDARD LENGTH BLADES

84 R 746—For cutting wood. Available in $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$ -in. widths. 60-in. around. For No. 845 Saws. Each. **.85c**

78-in. around. For No. 852 Saws. Each. **.89c**

95-in. around. ($\frac{1}{2}$ -in. also available.) For No. 766 Saws. Each. **1.25**

84 R 750—Blade 111-in. around. $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$ -in. widths. **1.25**

$\frac{1}{2}$ and $\frac{3}{4}$ -in. widths. **1.35**

84 R 757—For soft metal. $\frac{3}{8}$ " wide. 60-inch around. For No. 845 Saws. Each. **.95c**

78-inch around. For No. 852 Saws. Each. **1.00**

95-inch around. For No. 766 Saws. Each. **1.35**

BLADES PER FOOT

Same quality blade as at the left. 6 teeth per inch. Any length, but you pay for the next even foot. Add 38c per weld. You pay postage from Factory in Chicago. **84 R 760**

Width, In.	Per Foot
$\frac{1}{4}$	9c
$\frac{3}{8}$	10c
$\frac{1}{2}$	11c
$\frac{5}{8}$	12c
$\frac{3}{4}$	14c
1	15c
$1\frac{1}{4}$	20c
$1\frac{1}{2}$	24c

FEATURE CHECK LIST

Capacity.....	15"
Depth of Cut.....	$6\frac{3}{4}$ "
Cast Table Size.....	15"x15"
Table Size with Wood Extensions	15"x21"
Table Support...Front and Rear Trunnions	
Tilting Adjustment.....	45°
Bearings.....	New Departure Ball
Wheel Guard...Hinged one-piece Cast Iron	
Blade Guides.....	
Adjustable Rollers Above and Below Table	
Tension Adjustment.....	Hand Knob
Rubber Crowned Wheels..15" in Diameter	
Length of Blade.....	95"
Width of Blade.....	$\frac{3}{8}$ "
Speed Recommended.....	675 R.P.M.
Motor Recommended. $\frac{1}{2}$ H.P. 1750 R.P.M.	
Machine Pulley Supplied.....	$6\frac{1}{2}$ "
Motor Pulley Recommended.....	$2\frac{1}{4}$ "

Wards New 15-Inch PRODUCTION SAW

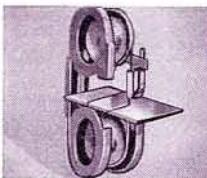
51⁵⁰

\$5 DOWN
\$5 MONTHLY

- Cuts to center of a 30-inch circle.
- Cuts stock up to $6\frac{3}{4}$ inches thick.
- New Departure Ball Bearings.
- One piece cast safety guard.

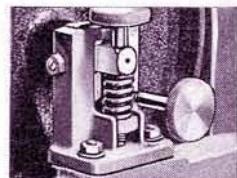
Meets exacting professional requirements . . . adaptable for metal cutting. Big 15 by 15-in. cast iron table mounted on husky double trunnions . . . tilts to 45° to right and 3° to left. Wood extension increases table area to 15 by 21-in. Blade runs on entire surface (not edge) of concave rollers, can't groove. Hardened steel (not soft bronze) blade guides above and below table. Balanced, 15-inch rubber crowned wheels. Upper wheel mounted in machined ways. Height overall about 41 inches. Equipped with handy rip fence.

84 R 766—Band Saw only. **51.50**
84 R 767—With No. 9842 $\frac{1}{2}$ H.P. Motor, 2 $\frac{1}{2}$ -in. V-pulley and 53-in. V-belt. **66.95**
84 R 710—Steel Stand for Above. **6.50**



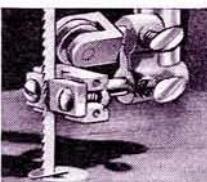
1-PIECE GUARD

Heavy cast guard opens easily to change blades.



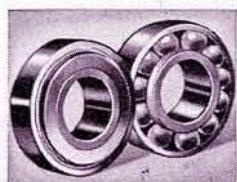
BLADE ADJUSTMENT

On upper wheel for adjusting blade tension.



ROLLER GUIDE

Blades run on patented concave roller guides.



BALL BEARINGS

Are famous grease sealed New Departure type.

DRILL PRESSES

- 15-Inch Drill Press
- Jacobs Key Chuck
- New Departure Bearings

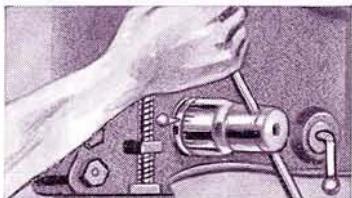
31²⁵
\$4 DOWN
\$5 MONTHLY

A precision built, heavy-duty drill press for the craftsman. Drive pulley mounted independently . . . supported by 3 grease sealed ball bearings with bronze bearing to take up radial load. Ball thrust bearing. Chuck to table 13½-in.; chuck to base 17-in. Quick action quill to hold spindle at any depth of cut. Safety guard on spindle. See drill press accessories on page 14.

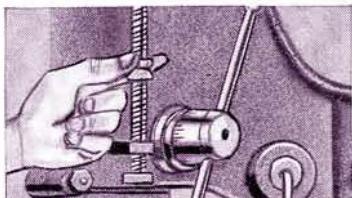
84 R 533—Drill Press with 4-step V-Pulley and V-Belt.....	31.25
84 R 594—Drill Press above, with No. 9861 ½-H.P. Split-Phase Ball Bearing Motor.....	40.75

FEATURE CHECK LIST

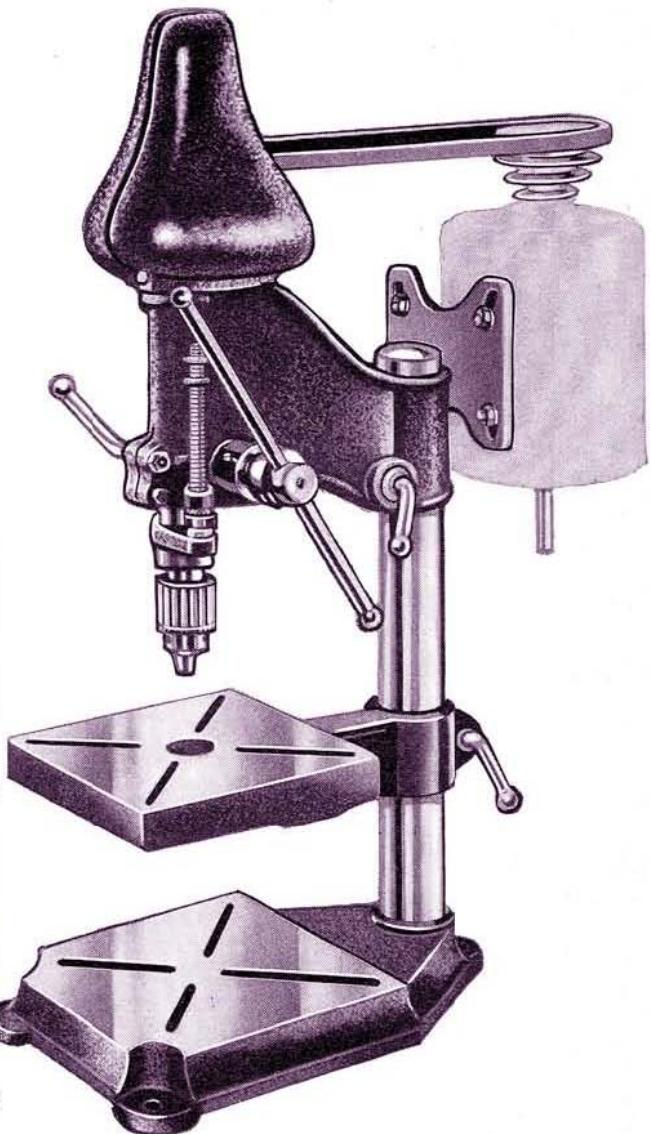
Capacity .....	.7½"
Table To Chuck.....	13½"
Base to Chuck.....	17¼"
Chuck.....	½" to ½" Jacobs Key Chuck
Type Bearings.....	New Departure Ball
Speed Range.....	600 to 5200 R.P.M.
Table Size.....	8" x 9" tilts to 45°
Base Size (Ground Surface).....	9" x 9"
Spindle.....	6-spline ¾"
Spindle Travel.....	3½"
Belt Adjustment.....	Vertical and Horizontal
Column Diameter.....	2" Column
Motor Recommended.....	½ H.P. 1750 R.P.M.
Machine, Motor Pulley Supplied.....	.5"—4-Step
Mounting Recommended.	Stand No. 84-8791



DEPTH GAUGE
Accurately calibrated to show exact depth of cut.



DEPTH STOP
To duplicate drilling a number of holes to the same depth.



Bargain! **12-INCH DRILL PRESS**

1195
\$2 DOWN
\$2 MONTHLY

Does the Work of Higher
Priced Tools. Start Your
Shop With Powr-Kraft!

A bench drill that meets all the requirements of the amateur craftsman, who is starting a home workshop. It drills to the center of a 12-in. circle, and has a spindle capacity of 3½ ins. 3-jaw chuck takes drills up to ½-in. diam. Maximum distance of chuck to table 7¾-in. Spindle fitted with self-lubricating bronze bearings. Has circular depth gauge to indicate depth of cut. Speed adjustments from 700 to 4000 R.P.M.

84 R 878—Drill Press only..... **11.95**

for all-around workshop service . . .

It's big capacity . . . low priced! Ideal for the home workshop. This 14½-inch drill press is priced so low that any craftsman can easily afford to buy one. Sells for dollars more elsewhere!

FEATURE CHECK LIST

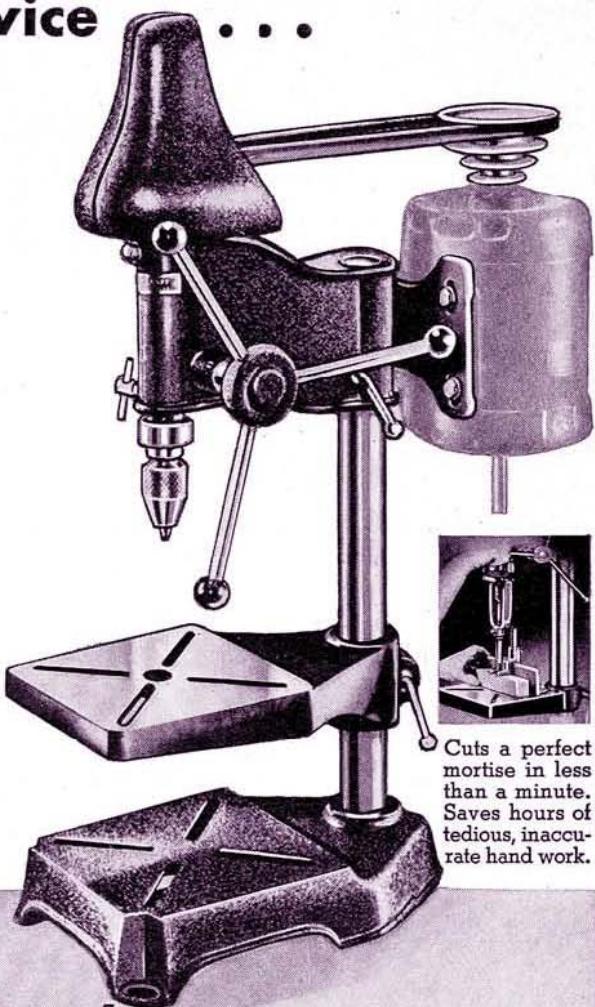
Capacity.....	7½"
Table to Chuck.....	11"
Base to Chuck.....	14"
3-Jaw Chuck takes Drills..	0-½" in Diameter
Bearings.....	Bronze
Speed Range.....	700 to 4000 R.P.M.
Table Size.....	7½" x 7½"
Base Size.....	8" x 8"
Spindle.....	6-spline ½"
Spindle Travel.....	3½"
Belt Adjustment.....	Vertical and Horizontal
Column Diameter.....	1½"
Motor Recommended.....	½ H.P. 1750 R.P.M.
Machine Pulley Supplied ..	4"-4 step Pulley
Motor Pulley Recommended.....	4"-4 step Pulley
Recommended Mounting. Stand No.	84-8791

1750
\$2.50 DOWN
\$2 MONTHLY

- Drills to Center of 14½-In. Circle.
- Self Lubricating Bronze Bearings.

6-spline spindle, ½-in. diameter (similar to spindles on larger models) travels 3½-in. Ball bearing end thrust. Maximum distance chuck to table 11 inches, chuck to base 14 inches.

84 R 627—Drill Press only **17.50**
84 R 628—With ½" Jacobs Chuck **22.50**
84 R 629—No. 627 Drill Press with No. 9861 ½ H.P. Motor, 4-step V-pulley and 37-inch V-belt **27.85**



Cuts a perfect mortise in less than a minute. Saves hours of tedious, inaccurate hand work.

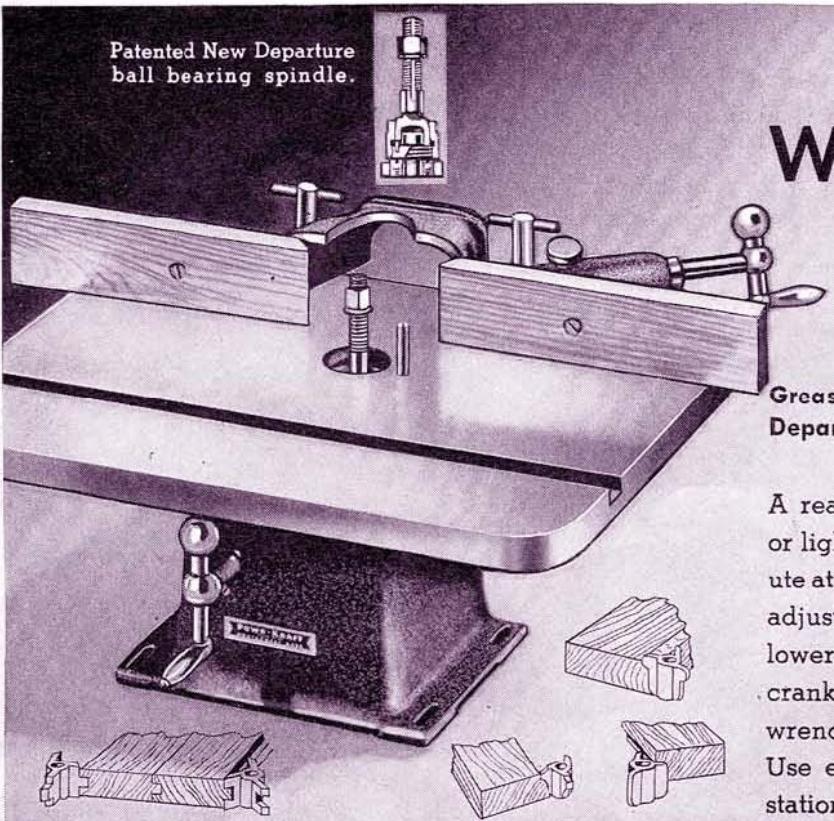
Patented New Departure ball bearing spindle.



Grease-sealed New Departure ball bearings

2325

Wards Heavy-Duty SHAPER



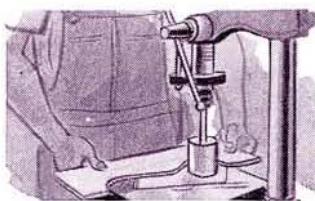
Tongue and groove cut for making flooring.

Make quarter round, window sash, moulding.

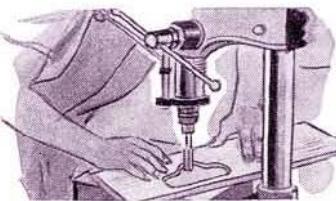
FOR SHAPER CUTTERS, SEE PAGE 15

NEW DEPARTURE BALL-BEARING

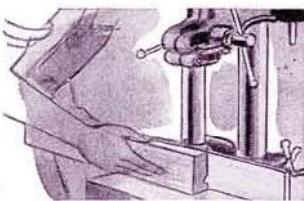
DRILL


SANDING

Sanding drum can be quickly attached for many sanding jobs.


ROUTING

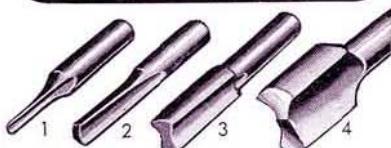
Use router bits below for cutting grooves and inlay work.


SHAPING

Shaper operations are easy with shaper accessories below.

FEATURE CHECK LIST

	621	623
Capacity	7 1/2"	7 1/2"
Table to Chuck...	13"	43"
Base to Chuck...	18 1/2"	48 1/2"
Chuck.....	Jacobs	Jacobs
Chuck Size.....	0-1/2"	0-1/2"
Bearings.....	New Departure Ball	New Departure Ball
Speed Range.....	600 to 5200 R.P.M.	600 to 5200 R.P.M.
Cast Table Size...	10"x10"	10"x10"
Base Size Over-all	12 1/2" x 19 1/4"	21 1/4" x 14 1/2"
Spindle.....	5/8"	5/8"
Spindle Travel...	4"	4"
Belt Adjustment..	Vertical and Horizontal	Vertical and Horizontal
Column Diameter	2 3/4"	2 3/4"
Motor Recommended.....	1/3 H.P.	1/3 H.P.
Machine and Motor Pulley Supplied.....	5" 4-Step	5" 4-Step

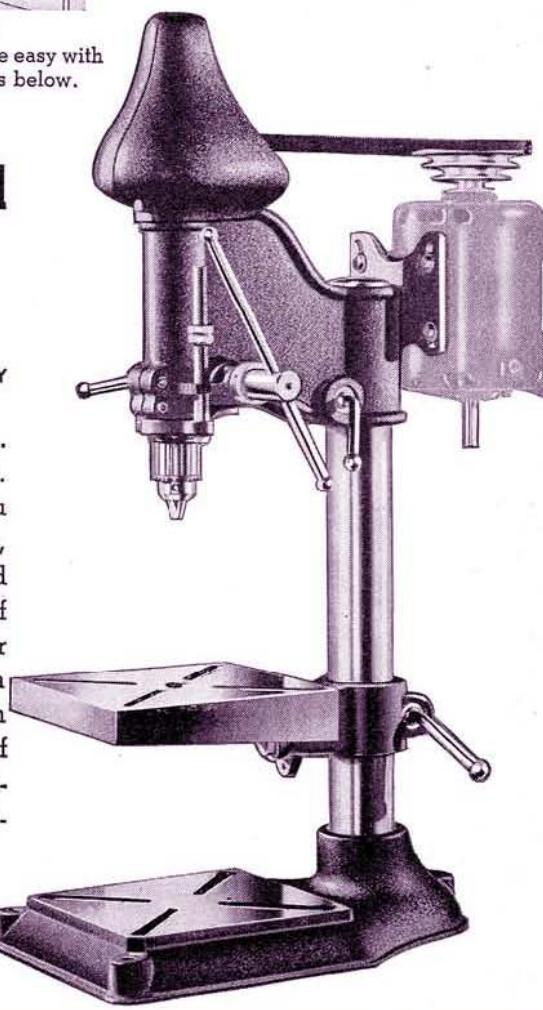

Routing and Mortising Cutters

No.	Key	Size	Price
641	1	5/16 or 1/2"	59c
641	2	5/16"	59c
641	2	1/4"	65c
641	3	5/8"	79c
641	3	1/2"	89c
641	4	5/8"	\$1.00

15-in. Bench Model

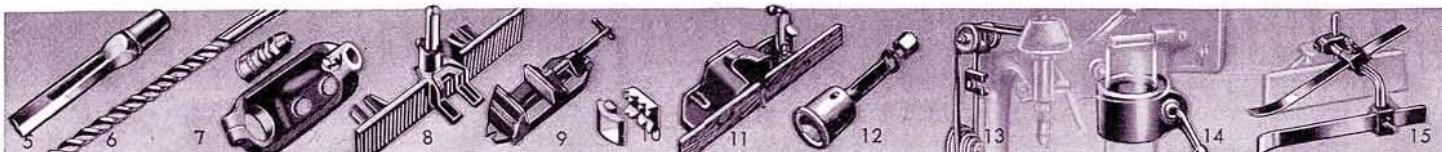
36⁵⁰
\$4 DOWN
\$5 MONTHLY

Our finest bench-model drill press ... built for heavy-duty production work. With the use of accessories below, you can do routing, mortising, shaping, sanding and drilling. Drive pulley and spindle are mounted on three sets of New Departure Ball Bearings for smoothness and accuracy. It has a maximum capacity of 18 1/2-in. from base to chuck, will drill to a depth of 4 inches in wood or steel. Motor adjusts vertically or horizontally. 10x10-inch table tilts 45° right or left.



84 R 621—With Pulley and Belt **36.50**

84 R 622—Drill Press above and No. 9861 1/2-H.P. Ball Bearing Motor **45.95**


HOLLOW CHISELS AND BITS

For making close-fitting joints with a drill press. Bit revolves inside hollow chisel and travels slightly ahead of it. Bit drills a round hole—chisel trims corners to make a square hole. Especially useful in making furniture where mortised tenon joints are essential for gluing. Finest tool steel (not ordinary carbon steel). Heat-treated to hold a keen edge. 1/4, 5/16 or 1/2-inch size.

Art. Number	Item	Each
(5) 84 R 8860	Chisel	\$1.45
(6) 84 R 8861	Bit	1.25

MORTISE HEAD-CHUCK

(7) Takes place of Jacobs Chuck on drill press. Holds hollow chisels and bits used for mortising. Set includes cast-iron holder, chuck and collet.

84 R 8950—Fits drill presses 84 R 628 and 84 R 593 **2.39**

84 R 8951—Fits drill presses 84 R 621 and 84 R 623, ... **2.39**

MORTISING HEAD ONLY

This mortising head fits the 84 R 627 drill only. No chuck is needed with it as the chuck on the drill press will hold the bits.

84 R 8952 **1.75**

MORTISING HOLD DOWNS

(8) Holds work on table during up-stroke of chisel. Raised or lowered on vertical rod carried in casting at back of fence. Assures a true-square mortise. For stock to 4 1/2 inches.

84 R 8898 **1.65**

DRILL PRESS VISE

(9-10) Holds small work. A convenient accessory for holding work solidly when drilling. Overall length 8 1/4-in. 2 3/4-in. jaws open to 3-in. Two jaws are included which make this vise an ideal jig.

84 R 8858 **1.95**

DRILL PRESS ACCESSORIES

(11) **Shaper Guard and Fence.** Make your drill press a spindle shaper. Similar to fence with shaper, 84 R 865.

84 R 8851 **2.85**

SHAPER CUTTERS ADAPTORS

(12) Replaces chuck on drill press for converting drill into heavy-duty shaper for making moldings and picture frames, and for finishing table edges. Fit drill presses 84 R 621, 84 R 623, and 84 R 593.

84R9992 for 5/16-in. cutters, **.75c**

84R9993 for 1/2-in. cutters, **.75c**

PULLEY ATTACHMENT

(13) Use in place of motor bracket on any bench model drill press. Drives from line or jack shaft.

84 R 8865—Each **1.95**

DRILL PRESS COLLAR

(14) For any drill press with 2 3/4-in. column. Locks on column to permit swinging of drill head.

84 R 8824 **1.45**

HOLD DOWN FOR SHAPER

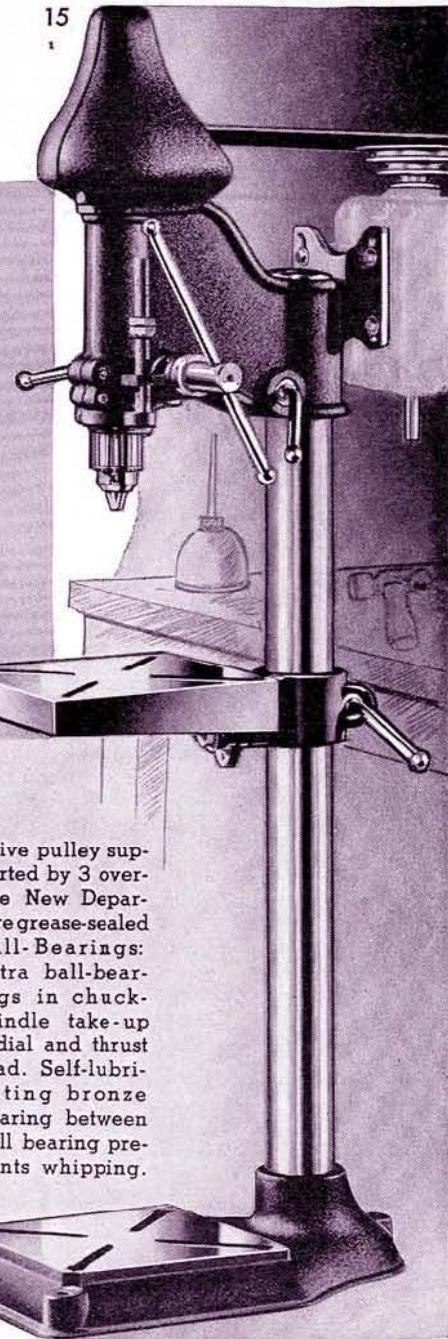
(15) Holds work against table. Can also be used on table saw and jointer. Adjustable. Clamps to table.

84 R 833 **1.95**

PRESSES

FEATURES COMMON TO BOTH MODELS

- Drive pulley, supported by 3 sets of New Departure grease-sealed Ball Bearings, prevents binding from belt tension.
- Improved-design spindle mounting gives greatest supported area of any drill press within dollars of Wards price!
- Convenient motor mounting adjustment for correct belt tension at all times.
- Equipped with famous, 0- $\frac{1}{2}$ -inch Jacobs Key Chuck at no extra charge.
- Ball-bearing in chuck spindle takes-up both radial and thrust load for more efficient smooth running.
- Self-lubricating bronze bearings, between ball bearings, prevent whipping.
- Heavy cast table tilts and locks to 45 degrees in either direction.
- Adjustable graduated depth gauge, with positive lock stop, insures uniform drilling depth at all times.



Drive pulley supported by 3 oversize New Departure grease-sealed Ball-Bearings. Extra ball-bearings in chuck-spindle take-up radial and thrust load. Self-lubricating bronze bearing between ball bearing prevents whipping.

15-INCH FLOOR MODEL

- Famous Jacobs Key Chuck.
- Ball Bearing Head Stock.
- Table Tilts to 45 Degrees.

4150
\$5 DOWN
\$5 MONTHLY

**\$5 DOWN
\$5 MONTHLY**

This extra heavy-duty drill press is precision-built to the finest degree. It's especially designed for manufacturers, garages, blacksmiths and machinists. With the attachments on opposite page, you really have 5 tools in one. It has a range of speeds from 600 to 5200 R.P.M. Check all the features and specifications above and on the opposite page.

84 R 623—Drill Press, with pulley and belt	41.50
84 R 624—Drill Press (above) complete with No. 9861 $\frac{1}{2}$ -H.P. Split-Phase Ball Bearing Motor.....	50.95

SHAPER CUTTERS



5/16-IN. SHAPER CUTTERS

Tough chrome vanadium tool steel...carefully tempered so that the keen edges stay sharper longer than ordinary steel cutters. Special grinding of cutter heel eliminates friction drag.

(1) SPLIT COLLARS
Holdsbev.edgeknives.
84 R 8802 — $\frac{1}{2}$ -inch
bore, Pair..... 1.25
Shaper Knife Blades
Collarsabove. $2\frac{1}{8}$ x $\frac{3}{16}$.
84 R 8810 — $\frac{1}{2}$ -inch
width, Pair..... 1.35
84 R 8810 —1-inch
width, Pair..... 1.89

Set of 24 CUTTERS
All $\frac{3}{16}$ cutters at right. With 6 depth washers.
84R8882—Set 12.25
DEPTH WASHERS
Assorted Diam. $\frac{5}{16}$ -inch bore.
84 R 8880—Set of 6.....**39c**

Type	Width	Diam.	Type	Width	Diam.	Type	Width	Diam.	Type	Width	Diam.
2	.177-in.	.95-in.	3	.125-in.	.95-in.	6	.221-in.	.994-in.	8	.282-in.	1.18-in.
2	.264-in.	.95-in.	3	.156-in.	.95-in.	6	.442-in.	1.03-in.	8	.344-in.	1.24-in.
2	.354-in.	.95-in.	3	.187-in.	.95-in.	84 R 8871.....	.59c	84 R 8876.....	.59c		
2	.442-in.	.95-in.	3	.250-in.	.95-in.				9	.194-in.	1.13-in.
84 R 8870.....	.59c		84 R 8873.....	.59c		7	.177-in.	1.02-in.	9	.260-in.	1.28-in.
			3	1-in.	1.25-in.	7	.264-in.	1.06-in.	84 R 8877.....	.59c	
4	.303-in.	1.09-in.	84 R 8879.....	.95c		7	.354-in.	1.09-in.	10	.177-in.	1.12-in.
4	.388-in.	1.16-in.	5	.442-in.	1.25-in.	7	.442-in.	1.13-in.	10	.282-in.	1.21-in.
84 R 8872.....	.59c		84 R 8874.....	.59c		84 R 8875.....	.59c	84 R 8878.....	.59c		



DEPTH WASHERS

DEPTH WASHERS
Have $\frac{1}{2}$ -inch bore, for
 $\frac{1}{2}$ -inch shaper cutters
at right. Assorted di-
ameters to regulate
depth of cut.

84 R 685—Set of 6..55c

1/2-INCH BORE SHAPER CUTTERS OF CHROME VANADIUM TOOL STEEL (NOT ORDINARY CASE HARDENED)

Article No.	Type	Width	Diam.	Price	Article No.	Type	Width	Diam.	Price	Article No.	Type	Width	Diam.	Price
84 R 677	12	1-in.	1¾-in.	95c	84 R 680	15	1-in.	1¾-in.	95c	84 R 672	18	1-in.	1¾-in.	95c
84 R 675	13	1-in.	1¾-in.	95c	84 R 678	16	1-in.	1¾-in.	95c	84 R 674	19	1-in.	1¾-in.	95c
84 R 673	14	1-in.	1¾-in.	95c	84 R 676	17	1-in.	1¾-in.	95c					

JOBs YOU CAN DO WITH A JOINTER-PLANER:



JOINTING



RABBETING

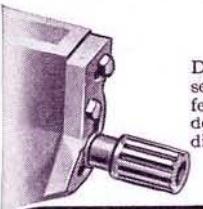


SURFACING

Use for smoothing the surface of rough lumber...for planing joints, or rabbeting (cutting "steps" in the edges of stock).



Solid steel cutter head has 3 full length cutting blades with chip breakers.



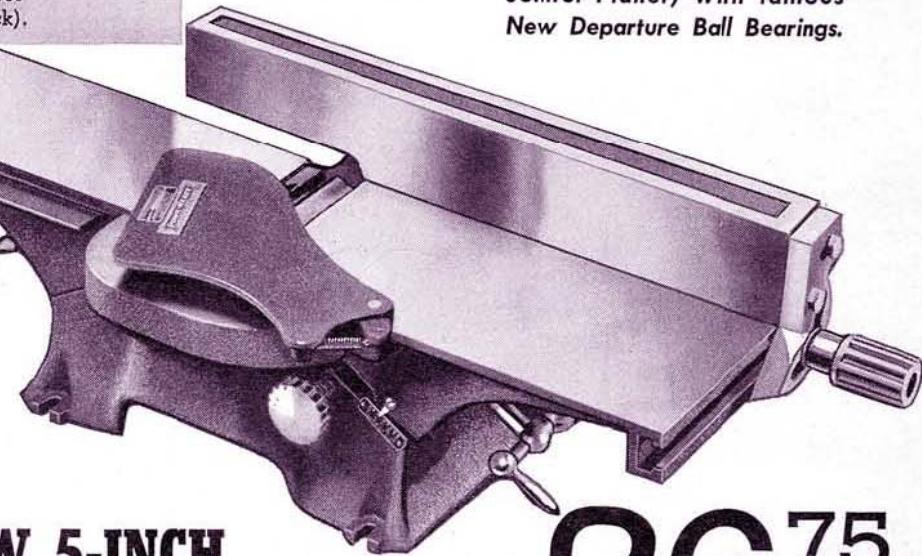
Double tilting, self-aligning cast fence tilts to 45 degrees in either direction.

FEATURE CHECK LIST

Width of Cut.....	.5"
Depth of Cut (Max.).....	3/8"
Depth of Rabbet.....	5/16"
Bearings.....	New Departure Ball
Length, Rear Table.....	12 1/2"
Length, Front Table.....	12 1/2"
Depth Adjustment.....	Ball Crank
Cutter Head.....	3-5" blades—with Chip Breakers
Fence.....	19 1/4" x 2 1/4"
Fence Adjustment.....	Hand Knob-45° Tilt
Shaft Diameter.....	5/8"
Guard.....	Approved Safety Type
Speed Recommended.....	4600 R.P.M.
Motor Required.....	1/2 H.P.—1750 R.P.M.
Jointer Pulley Supplied.....	2"
Motor Pulley Recommended.....	.5"
Mounting Recommended.....	Stand No. 84-8791

JOINTERS

New heavy-duty precision-built Jointer-Planer, with famous New Departure Ball Bearings.



NEW 5-INCH BALL BEARING JOINTER

26⁷⁵

\$3 DOWN
\$4 MONTHLY

A new jointer designed for the home workshop, craftsman, or small manufacturer who wants a precision-built tool capable of doing heavy-duty jobs. Cuts stock 5 inches wide, and can be adjusted to cut to a depth of $\frac{3}{8}$ inch. The front table is raised and lowered by means of ball crank handle. The front table is fitted with a rabbeting arm and the rear table with a rabbeting ledge. Cast fence for guiding work has a 45° protractor

scale and can be tilted in either direction. Three 5-in. high speed steel blades have approved safety chip breakers... prevent "kick-backs." Cutter head runs up to 5000 R.P.M., makes 15,000 cuts per minute. Cutter head balanced after blades are installed for smooth operation.

84 R 691—Jointer only..... 26.75

84 R 694—With No. 9861 1/2-H.P. Motor, 5-in. V-pulley and 44-in. V-belt 37.25

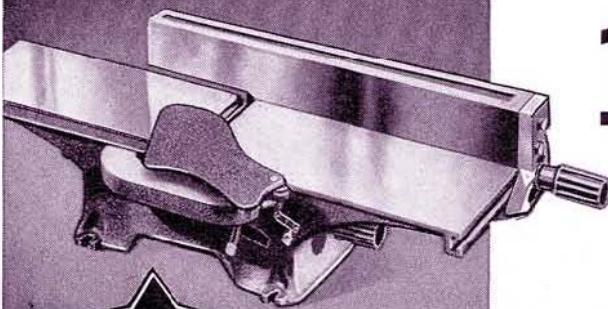
Special! 4 1/2-INCH JOINTER-PLANER

14⁹⁵

\$2 DOWN
\$2 MONTHLY

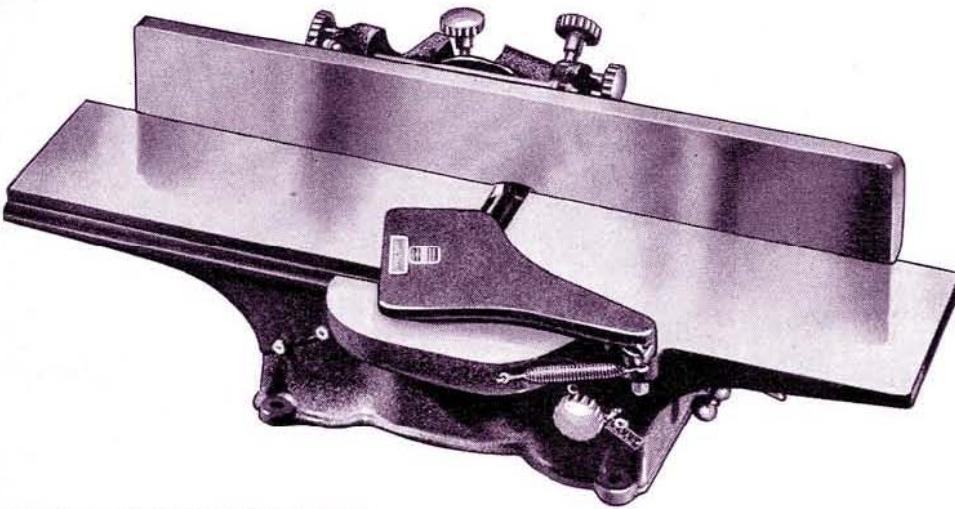
- Cuts 4 1/2-inch width.
- Cuts to $\frac{5}{16}$ -in. depth.
- Fence tilts to 45°.

Machined tables 11 1/16-in. each... front table has rabbeting arm—rear table has rabbeting ledge. Cutter head is mounted on 1/2-in. steel shaft and balanced after blades are installed. Safety type chip breakers prevent "kick-backs." Double tilting, self-aligning cast fence has protractor scale. Operate at 4000 to 5000 R.P.M. Self-lubricating bronze bearings. 84 R 625—Jointer-Planer with 1 1/4" pulley... 14.95



BARGAIN

with new Ward features, at low Ward prices!

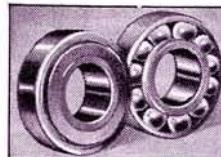


FEATURE CHECK LIST

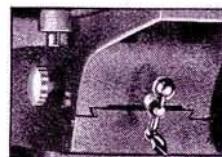
Width of Cut.....	6"
Depth of Cut (maximum).....	5/8"
Depth of Rabbet.....	1/2"
Length, front Table.....	16"
Length, rear Table.....	17"
Table Length Over-all.....	34 1/2" at zero
Depth Adjustment.....	Ball Crank
Cutter Head.....	3-6" blades—with Chip Breakers
Length, fence.....	30" x 4"
Fence Adjustment.....	Hand Knobs—45° Tilt
Ground Steel Shaft, Diameter.....	5/8"
Guard.....	Approved Safety Type
Speed Recommended.....	4600 R.P.M.
Motor Required.....	1/4 H.P.—1750 R.P.M.
Machine Pulley Supplied.....	2"
Motor Pulley Recommended.....	5"
Mounting Recommended.	Stand No. 84-8791

BIG 6-INCH HEAVY DUTY JOINTER

A production jointer for cabinet makers, pattern shops, building contractors, schools and factories. Tables adjustable for rabbeting. Front table supported on machine-fitted steel post—adjustable for depth with acme threaded screw and ball crank mechanism. Tables machine-ground in pairs for perfect alignment. Bearing housings are integral part of frame (not separate die castings). Extra large steel fence, 30-in. long by 4-in.



Equipped with famous
New Departure Ball
Bearings.



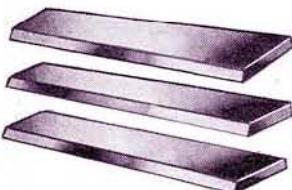
Tables mounted on dove-tailed ways with machined
adjustable gibbs.

- Fence tilts to 45° both ways.
- Capacity is full 6 inches wide and up to 5/8-inch deep. (max.)
- One piece balanced cutter head.

42⁹⁵
\$5 DOWN
\$5 MONTHLY

high supported on rear table mounting . . . work can't wedge between fence and rear table. 1-piece alloy steel cutter head has three 6-in. high speed steel cutting blades with safety chip breakers . . . prevents any "kick-backs." Heavy cast iron guard meets all safety codes. 2-inch V-pulley included.

84 R 618—Jointer only 42.95
84 R 640—With No. 9842 1/2-H.P. Motor, 5-in. V-pulley and 44-in. V-belt 58.50



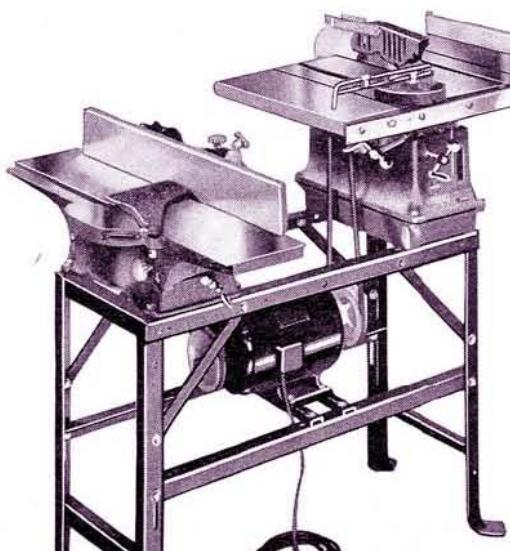
KNIVES FOR PLANER-JOINTERS

Finest quality, correctly tempered, high-speed tool steel . . . hold their sharp edge in hardest wood much longer than carbon steel knives.

84 R 8929—For 84 R 625 or any jointer taking 4 1/4-inch blades. Set of 3 1.98

84 R 8912—For 84 R 691 or any jointer taking 5-in. blades. Set of 3 2.95

84 R 8933—For 84 R 618 or any jointer taking 6-in. blades. Set of 3 3.10



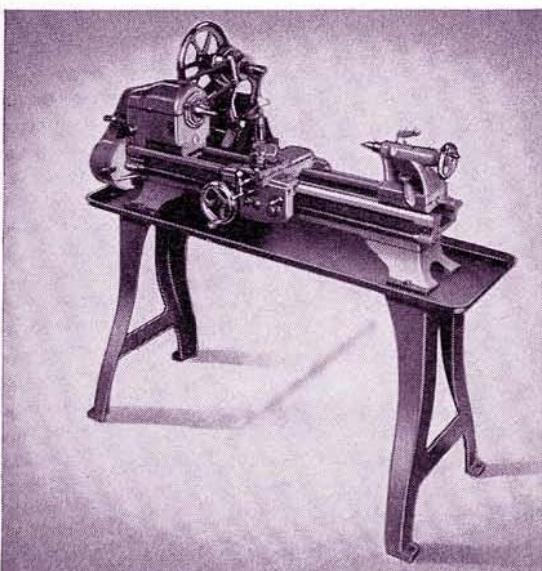
COMBINATION STAND FOR JOINTER AND BENCH SAW

10⁷⁵
\$2 DOWN
\$2 MONTHLY

Here's an ideal way to set up your jointer and bench saw . . . it's portable, can be moved from job to job. Will perform the majority of woodworking operations on construction jobs. Includes extra cast base for No. 690 or No. 692 Saws.

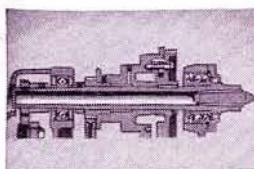
84 R 708—Stand and base only 10.75

WARDS NEW BALL BEARING . . . METAL-TURNING

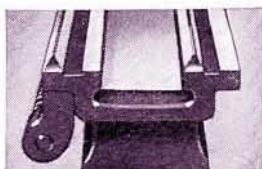


Bench legs and Motor Bracket for Lathes.

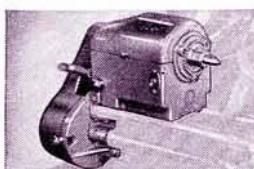
84 R 771—Shown above 12.75
84 R 772—Chip Pan for Lathes 8.25



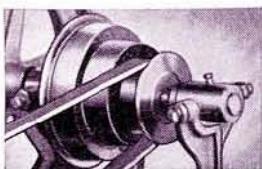
New Departure Ball Bearing headstock, found only in higher priced lathes.



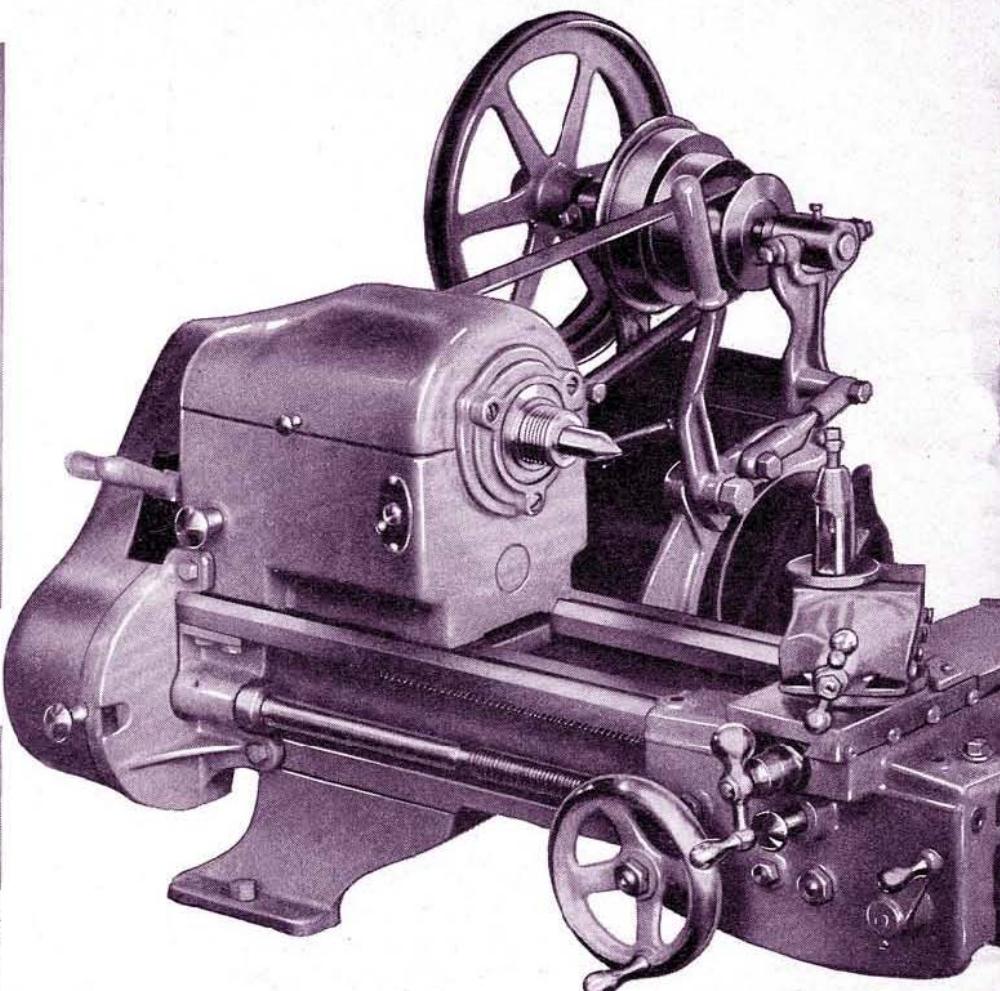
Precision machined V and flat ways . . . milled, planed and scraped for accuracy.



Positive locking—back gear mechanism—rack and pinion type.



Equipped with flat cone pulleys. Convenient when making belt replacements.



STANDARD
MODEL

PLAIN
BEARING

117⁵⁰

\$10 DOWN
\$9 MONTHLY

DE LUXE
MODEL

BALL
BEARING

147⁵⁰

FEATURE CHECK LIST

Swing over bed.....	10"
Between Centers.....	24"
Bed Length.....	42"
Overall Length.....	50"
Spindle Bearings.....	New Departure Ball
Power Cross Feed.....	Equipped
Compound Rest Travel.....	6 1/2"
Cross Slide Travel.....	2 1/2"
Main Drive.....	3-Step Cone Pulley
Speeds (with back gears).....	12 (41-1270)
Lead Screw	3/4-8 Acme Threaded
Spindle—Nose.....	1 1/2-8 R.H.
Taper.....	No. 3 Morse with sleeve to No. 2
Hole.....	25/32"
Tailstock Taper.....	No. 2 Morse
Tailstock Ram Travel.....	2 1/8"
Tailstock set-over.....	11/16"
Thread Range.....	4-216 R.H. or L.H.

A TOOL SHOP LATHE FOR MASTERS

- *The Only Metal Lathe Selling for Under \$475 Equipped with New Departure Ball Bearing Headstock Spindle!*

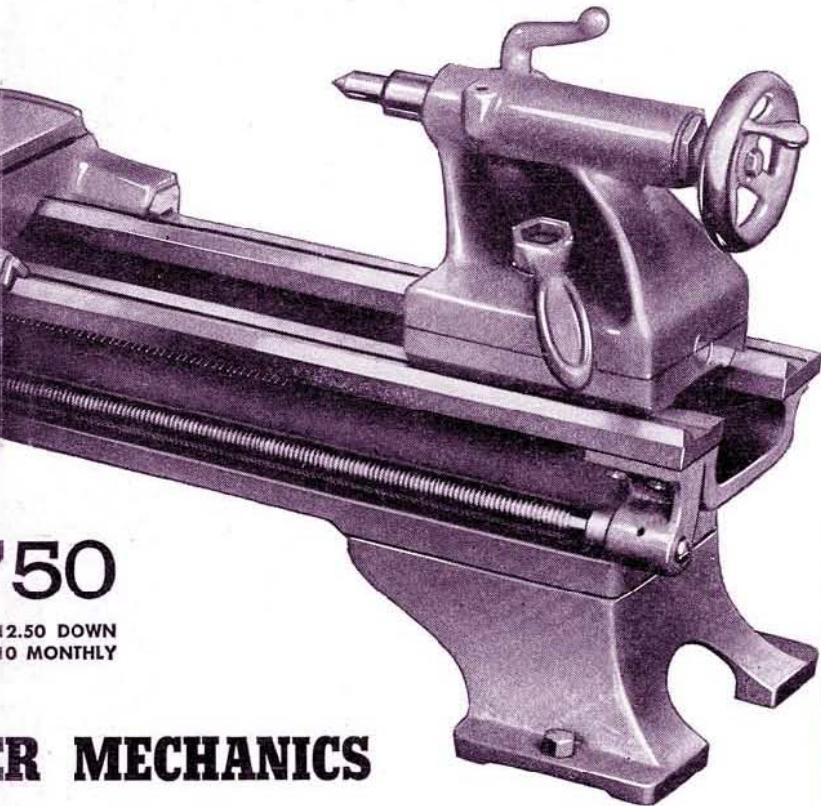
Your money back (including transportation costs) if this isn't the finest industrial-type metal lathe you've ever seen for less than \$200! You be the judge! Look at the table at the left—compare these specifications with the finest lathes you know of!

BED: Milled, planed and hand scraped—homogeneous, annealed and heat-treated, for removal of internal stresses.

GEARS: Machine cut (not die cast) extra wide—back gears and reverse gears $\frac{5}{8}$ inches; change gears $\frac{7}{16}$ inches. Adequate gears for thread cutting. Back gears enclosed in head—prevent clogging. Conventional quick-change reversing gear.

LATHE . . .

- Extra-Wide, Precision-Machined V and Flat Ways— $6\frac{5}{8}$ in.
- Carriage has 9 in. bearing surface on ways
- Power Cross Feed and Longitudinal Feed
- No Die Castings! All Parts Precision Machined!
- Drives from line shaft or counter-shaft . . . cone pulley
- 2-Step V counter shaft pulley with back gears gives 12 spindle speeds from 41 to 1270 R.P.M.
- Thread cutting dial included



50
12.50 DOWN
10 MONTHLY

ER MECHANICS

HEADSTOCK: Tempered alloy steel spindle . . . fully ground.

TAILSTOCK: $11/16$ inches offset for taper turning . . . self-ejecting type. $1/16$ inch calibrations on spindle.

CARRIAGE: Equipped with compound rest and adjustable gib. Compound rest swivels 180° —locks at any angle. Compound rest and cross-feed screws have large-diameter, adjustable micrometer collar, graduated in thousandths. We recommend a $1/3$ H.P. Capacitor Motor, 1750 R.P.M.

84 R 700—De Luxe Model.....147.50

84 R 701—Standard Model. Same as above, but with plain bearings (split for take-up) and without power cross feed.....117.50



DRAW-IN COLLET CHUCK

(1) Hollow draw-in bar extends through headstock. Threaded at spindle to hold collet.

84 R 791—Less Collets. 18.50

SPLIT HOLDING COLLETS

(2) For use with 84 R 791 above. Sizes: $1/16$, $3/32$, $1/8$, $5/32$, $3/16$, $7/32$, $1/4$, $9/32$, $5/16$, $11/32$, $3/8$, $15/32$, $1/2$ inch.

84 R 792—Each.....3.79

TOOL HOLDER

(3) Reversible for R.H. or L.H. With wrench, boring bar.

84 R 832.....2.85

SPINDLE CAP

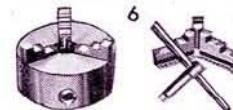
(4) To protect lathe spindle threads while using draw-in collet.

84 R 793.....2.20

JACOBS CHUCK

(5) Capacity 0 to $\frac{1}{2}$ in. Use on head or tailstock for holding drills. Latest design precision machined, perfectly balanced. Arbor included adapts chuck to fit No. 2 Morse Taper.

84 R 787.....7.50



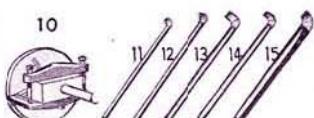
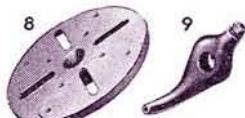
5-INCH 3-JAW CHUCK

(6) Self-centering. For centering round or hexagonal work. Adjustable. Fits any $1\frac{1}{2}$ —8 thread spindle. Includes 2 sets of jaws.

84 R 788.....20.25

(7) Holds work of all shapes in eccentric or concentric position. Fits any $1\frac{1}{2}$ —8 thread spindle. Heat treated and tempered jaws.

84 R 789.....15.65



FACE PLATES

(8) For any lathe with $1\frac{1}{2}$ —8 thread spindle, as on the metal cutting lathe shown at the left. Fully machined, perfectly balanced. Has holes for metal operations and slot for lathe dog. Strong cast iron construction for heavy work. Machined face.

84 R 773—6-inch size...2.10

84 R 786—8-inch size...3.65

LATHE DOGS

(9) 84 R 8811.

Size	Each
$1/2$	57c
$3/4$	65c
1	79c
$1\frac{1}{2}$	89c

BORING BARS

For boring work of small internal diameters, turning and threading.

84 R 831.

No.	Size	Each
11	$1/8 \times 4$	32c
12	$3/16 \times 4\frac{1}{2}$	37c
13	$1/4 \times 5$	49c
14	$5/16 \times 6$	59c
15	$3/8 \times 7$	75c



STEEL TOOL HOLDERS

(16) 84 R 822—Straight. 1.15

84 R 820—Right Hand. 1.15

84 R 821—Left Hand. 1.15

(17) 84 R 823—Threading Tool.....2.50

(18) 84 R 824—Cut-off tool holder. Right Hand.....1.55

(19) 84 R 825—Knurling tool Med. Diamond Roller...2.98

84 R 826—Diamond Knurling Roller for No. 825. Med. 95c



NO. 2 MORSE TAPER CENTERS

(23) Cup Centers. Tailstock centers for wood turning. Hardened steel. Removable points.

84 R 8816—Number 2 Shank.....65c

(24) Screw Centers. Accurate. Removable screw.

84 R 8818—Number 2 Shank.....95c

(25) Spur Centers. Hardened steel.

84 R 8814—Number 2 Shank.....65c

(26) Lathe Center for Jacobs Chuck, shown on page 31. 84 R 8822—Number 2 Shank.....75c

(27) Chuck Center with Chuck. Accurately ground. Complete with 84 R 8890 $1/2$ -in. chuck on page 31.

84 R 8820—Number 2 Shank.....1.19

(28) 60 Degree Center. Hardened steel.

84 R 8812—Number 2 Shank.....65c

FOLLOWER REST

(21) For small rods. Mounts on back of carriage.

84 R 795.....3.95

STEADY REST

(22) Clamps to bed ways. For fine work. Cast jaws, 3-in. capacity.

84 R 796.....5.95



60° COUNTER-SINK DRILLS

(29) Cuts accurate countersink in work to be mounted between centers. Gives proper bearing for center. High grade Carbon tool steel.

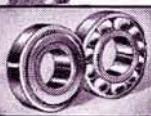
84 R 834.

Size In.	Price Each
$1/16$	32c
$5/32$	37c
$1/8$	43c

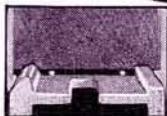


EXTRA-HEAVY-DUTY LATHE

with New Departure ball bearings



New Departure
Ball Bearings.



Exclusive V and flat
machined ways.

Weighs 110 lbs., Net!

COMPARE LATHES SOLD UP TO \$40!

Built for precision woodworking and pattern-making. It's heavier, stronger and has a greater capacity than production lathes sold up to \$40! Look at the specifications! Exclusive V and Flat ways prevent any play at right angles to the bed. Spindle ground to accuracy of 1/5000 of an inch—projects at left for outboard turning. Spindle index locking device has one row of 30 and one row of 8 positions. 4-speed pulley drives from below or behind. Safety shielded headstock. Self-ejecting tailstock quill. Use 1/2-H.P. motor.

84 R 619—Lathe with 56-in. belt 34.50
84 R 9989—4-Step Motor Pulley. 1/2, 5/8 or 3/4-in. bore 1.10

34⁵⁰

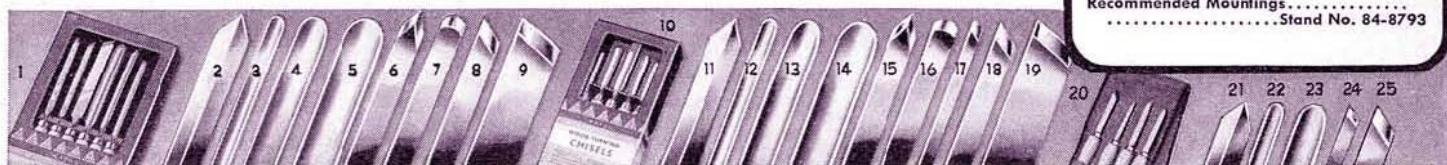
\$4 DOWN
\$5 MONTHLY

*New Departure
Grease-Sealed Ball
Bearings.

*Cam action tail-
stock quill.

FEATURE CHECK LIST

Swing over Bed.....	14"
Distance between Centers.....	38"
Ways.....	V and Flat Machined
Drives.....	Below or Behind
Face Plate included	3 1/2"
Spindle Bearings.....	New Departure Ball
Headstock Spindle.....	1 1/8"—8 threaded inboard and outboard
Headstock and Tailstock Taper	No. 2 Morse Taper
Tool Rest.....	12"
Speed Range.....	740 to 4000 R.P.M.
Motor Recommended. 1/2 H.P.—	1750 R.P.M.
Machine Pulley Supplied.....	4 step 4 1/2"
Motor Pulley Recommended.....	4 step 4 1/2" No. 9989 Pulley
Recommended Mountings.....	Stand No. 84-8793



New Master Professional Chisels

No.	Size	Price
(2) 84 R 836	5/8"	\$1.45
(3) 84 R 837	1/4"	1.55
(4) 84 R 838	5/8"	1.65
(5) 84 R 840	1"	1.85

(1) Set of 8 chisels; one each of the above. Forged alloy tool steel, hardened and tempered. Stay sharp longer than ordinary steel chisels. Maple handles 9 in. long. **84 R 862**—Complete set 9.95

Master Quality Chisels

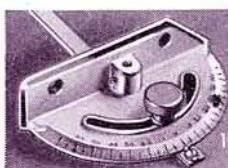
No.	Size	Price
(6) 84 R 841	1/2"	\$1.25
(7) 84 R 844	1/2"	1.25
(8) 84 R 847	1/2"	1.25
(9) 84 R 848	1"	1.45

(10) Set of 5 chisels. 11, 13, 14, 17, 18. Crucible tool steel hardened and tempered. Polished blades with 8-inch hardwood handles. Packed in attractive carton. **84 R 734**—Complete set 3.15

Lakeside Tempered Vanadium Steel

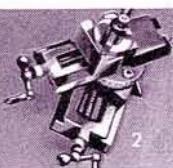
No.	Size	Tool	Price
(21) 84 R 8916	5/8"	Parting Tool	49c
(22) 84 R 8919	1/2"	Gouge	55c
(23) 84 R 8920	1/2"	Gouge	79c
(24) 84 R 8917	1/4"	Skew	49c
(25) 84 R 8918	1/2"	Skew	55c

(20) Set of 4 chisels. 21, 22, 24, 25. Packed in canvas roll. This set of chisels is made of carefully tempered Vanadium steel. Hardwood handles 8 inches long. **84 R 8915**—Complete set 2.10



MITER GAUGE

(1) Slides in table slot of lathe sanding attachment. Gauge has precision calibrations which enables you to do sanding accurately. Knurled nut holds gauge at any angle. **84 R 8800**—For 619 Lathe 15.75
84 R 8801—For 889 Lathe 13.95



COMPOUND REST

(2) Swivel base graduated to 180°. Has both longitudinal and transverse feed handles calibrated in thousandths of an inch. Longitudinal feed 6 1/2 in.; transverse feed 7 in. **84 R 8800**—For 619 Lathe 15.75
84 R 8801—For 889 Lathe 13.95

HIGH SPEED BITS

(3) Set includes round nose turning tool; right and left hand turning tool; right and left hand facing tool; threading tool. Fit tool holder of compound rests at left. Size: 5/16 by 1 1/4 in. **84 R 8840**—Has 1-in. diameter post. **84 R 8841**—Has 5/8-in. diam. post.

CAST IRON TOOL RESTS

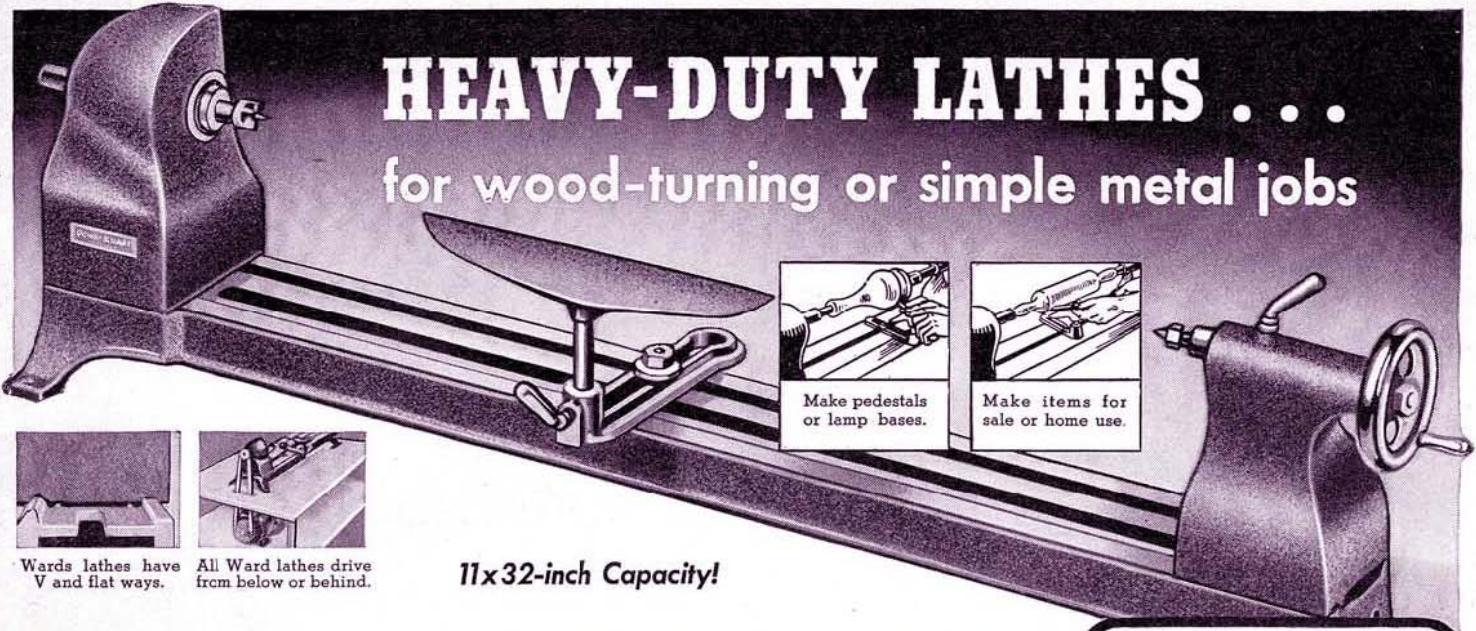
Increase working surface for chisels—
84 R 8840—Has 1-in. diameter post. **84 R 8841**—Has 5/8-in. diam. post.
(4) 4-in. size 65c
(4) 12-in. size 95c
(5) 24-in. double post 2.10
(4) 12-in. size 89c
(5) 18-in. double post 1.45

TOOL REST HOLDERS

Rugged cast iron—carefully machined to fit lathe bed. Attachments for fastening to lathe bed included.
(6) **84 R 8836**—Tool rest holder. 5/8-in. hole. Fits No. 889 Lathe 69c
(7) **84 R 8835**—Tool rest holder complete. Hole for tool rest post 1-in. diameter. Fits No. 619 Lathe 14.50

HEAVY-DUTY LATHES . . .

for wood-turning or simple metal jobs



Wards lathes have V and flat ways.

All Ward lathes drive from below or behind.

11x32-inch Capacity!

BRONZE-BEARING MACHINED LATHE

A real heavy-duty lathe at the usual price of bargain lathes! Heavy cast iron bed has Wards exclusive V and Flat ways to keep the head and tailstock in perfect alignment at all times. Modern design safety shielded headstock has hollow spindle for cutting off rods, etc. 4-speed pulley drives from below or behind. Can be used for light metal cutting with attachments below. **HEAD AND TAILSTOCKS MACHINED IN PAIRS!** That's why they line up so perfectly! Self-lubricating bronze bearings with ball-bearing end thrust. Use $\frac{1}{3}$ -H.P. motor.

84 R 889—Lathe **14.95**

Repair parts for
POWR-KRAFT tools
are always available
at Wards.

4-JAW CHUCKS FOR LIGHT DUTY

84 R 8907—Fits 84 R 619 Lathe or any lathe with $\frac{1}{4}$ " spindle 7 threads per in. **5.75**

84 R 8803—Fits 84 R 889 Lathe or any lathe with $\frac{3}{4}$ " spindle 16 threads per in. **4.95**

DYNAMICALLY BALANCED FACE PLATES

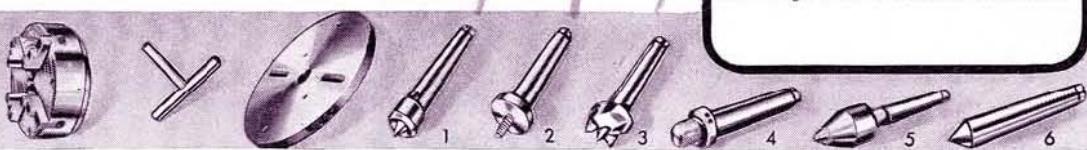
84 R 8833— $\frac{3}{4}$ " diam. For $\frac{1}{2}$ " unthreaded spindle as on No. 636 and No. 902 Lathes. **.85c**

84 R 8831— $\frac{3}{4}$ " diam. $\frac{3}{4}$ " bore, 16-thread **1.10**

84 R 8832— $\frac{5}{8}$ " diam. for $\frac{3}{4}$ " outboard unthreaded spindle on No. 889 Lathe. **1.25**

84 R 8834— $\frac{5}{8}$ " diam. $\frac{1}{4}$ " bore, 7-thread (right hand) for No. 619 Lathe. **1.65**

84 R 8837— $\frac{5}{8}$ " diam. for $\frac{1}{4}$ " 7-thread (L.H.) outboard spindle on 84 R 619 Lathe. **1.55**



14⁹⁵

\$2 DOWN
\$2 MONTHLY

**Include a set of
woodworking chisels
with lathe—
at no increase in
monthly payments.**

FEATURE CHECK LIST

Swing over Bed.....	11"
Distance between Centers.....	32"
Distance between Centers with Extension.....	50"
Ways.....	V and Flat Machined
Drive.....	From Below or Behind
Bearings.....	Bronze
Headstock Spindle.....	$\frac{3}{4}$ " diam. Hole $\frac{3}{8}$ "
Headstock and Tailstock Taper.....	No. 1 Morse Taper
Tool Rest.....	12"
Speed Range.....	765 to 4000 R.P.M.
Motor Recommended..	$\frac{1}{3}$ H.P.—1750 R.P.M.
Lathe Pulley Supplied.....	4" 4-Step Pulley
Motor Pulley Recommended.....	4-Step..... No. 9974 Pulley
Mounting Recommended.	Stand No. 84-8792

MORSE TAPER CENTERS FOR LATHE SPINDLES

(1) Cup Centers. Tailstock centers for wood turning. **84 R 8814**—No. 2 Shank. **.65c**

84 R 8815—No. 1 Shank. **.59c**

(2) Screw Centers. Removable screw. For making knobs. **84 R 8818**—No. 2 Shank. **.95c**

84 R 8819—No. 1 Shank. **.59c**

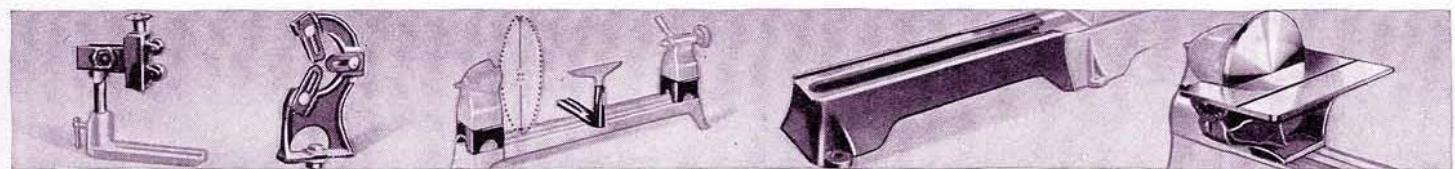
(3) Spur Centers. Most commonly used headstock center. **84 R 8820**—No. 2 Shank. **.65c**

84 R 8821—No. 1 Shank. **.59c**

(4) Jacobs Chuck Lathe Center. Hardened steel. **84 R 8822**—No. 2 Shank. **.75c**

(5) Chuck Centers with Chuck. Accurately ground for perfect fit. Complete **84 R 8811**—No. 2 Shank. **.65c**

84 R 8813—No. 1 Shank. **.59c**



RESTS FOR TURNING LONG PIECES

Back Rest for tool rest holders, it mounts behind work and insures accurate work when turning long pieces. Rollers adjust as work progresses.

84 R 8846— $\frac{5}{8}$ " hole. **3.89**

84 R 8847—1" hole. **3.89**

Steady Rest for work up to $\frac{2}{3}$ -in. in diameter. Relieves pressure on long, thin spindles. Increases accuracy. Also used for metal spinning. Fits V and flat ways. High tool rest holder included.

84 R 8843—For 84 R 889 Lathe. Each. **2.29**

84 R 8842—For 84 R 619 Lathe. Each. **2.39**

84 R 657—Set. **9.65**

BED EXTENSION

For Gap-Bed Lathe 84 R 636. Increases distance between centers of lathe to $39\frac{1}{2}$ in. Tailstock slides freely over milled joint.

84 R 634 **1.29**

For Lathe No. 84 R 889. Increases distance between centers to 50 in. Has foot like lathe, and same V and flat ways.

84 R 737 **3.95**

SANDING ATTACHMENT FOR LATHE

Large, 10-in. disc fits spindle of lathe. Table fits V and flat ways. Heavy cast table 10 by 16 in. Tilts to 45° on double trunnions.

84 R 8903—For 84 R 889 Lathe. **8.95**

84 R 8906—For 84 R 619 Lathe. **8.95**

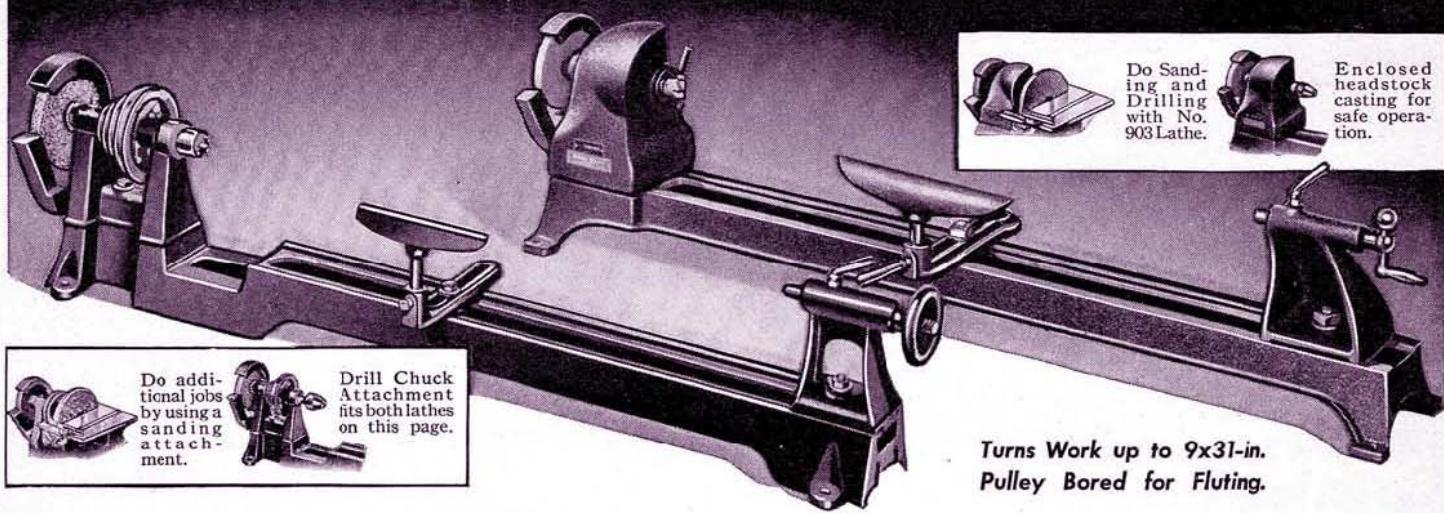
Disc Sandpaper. 10-in. diam. Fits above sanding attachment. Fine, medium and coarse grit.

84 R 712—Each. **15c**

21

LATHES

for the small shop
... at great savings



COMPARE \$10 LATHES!

Includes Exclusive
Built-in Grinder!

6⁹⁵

Only at Wards, a GAP-BED Lathe with a Built-in Grinder, at a price like this!

84 R 636 6.95

Sanding Attachment. 6-in. sanding disc. Steel table clamps to lathe bed. With miter gauge. Illustrated above.

84 R 8823 1.95

84 R 8849—Drilling Attachment. 1/2-in. 3-jaw drill chuck. Illustrated above.95c

84 R 637—Combination Lathe and Attachments. Includes No. 636 Lathe, No. 8823 Sanding and No. 8849 Drilling Attachments. 9.65

FEATURE CHECK LIST

	636	902
Swing over bed	8"	9"
Distance between centers	27"	31"
Distance with extensions	38"	—
Spindle Bearings	Bronze	Bronze
Spindle Diameter	1/2"	5/8"
Grinding Wheel	4" x 1/2" x 1/2"	4" x 1/2" x 1/2"
Drive	Below or Behind	Below or Behind
Length of Bed	37 1/2"	43 3/4"
Tool Rest	6"	9"
Ways	Ground Flat	Ground Flat
Headstock	Dowelled and bolted to base	Triple bolted
Speed Range	765 to 4000 R.P.M.	765 to 4000 R.P.M.
Motor Recommended	1/4 H.P.	1/3 H.P.
Machine Pulley Supplied	4" 4-Step No. 9974	4" 4-Step No. 9974
Motor Pulley Recommended	4" 4-Step	4" 4-Step

Turns Work up to 9x31-in.
Pulley Bored for Fluting.

WARDS MIRACLE VALUE!

Headstock Triple-Bolted to 43 3/4-in.

11⁹⁵

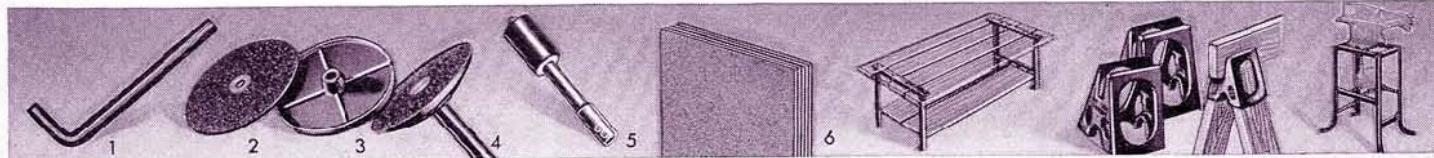
\$2 DOWN
\$2 MONTHLY

Here's why this is one of Wards greatest Powr-Kraft values! Machined throughout for accurate work! Self-lubricating bronze bearing in head, with ball thrust bearing to absorb end thrust. New safety-shielded headstock. 4-step pulley.

84 R 902—With built-in grinder. 11.95

84 R 8848—Sanding Attachment. 6-in. disc, table, miter gauge. Illustrated above. 1.95

84 R 903—Combination Lathe and Attachments. No. 902 Lathe, No. 8848 Sanding and No. 8849 Drilling Attachments. 14.65



(1) **Wrenches.** Hollow head set screw wrenches. Hardened and tempered steel.
84 R 8930—1/4-inch 5c
84 R 8931—5/16-inch 6c

84 R 8932—3/8-inch 10c

(2) **Abrasive Disc.** Rubber-bonded for quick, clean cutting of metals, stone, brick, tile, etc. Diam. 8-in.; 3/8-in. thick; has 5/8-in. hole. 5000 to 6000 R.P.M. recommended.
84 R 8901..... 1.10

(3) **Die Cast Sanding Disc.** Used on lathes and flexible shafts. Diam. 6 inches; 1/2-in. unthreaded bore with set screws.
84 R 717 65c

Sanding Disc Adhesive. Really holds, yet quickly removed. About 5-in. stick.
22, **84 R 755**—Not shown. 39c

(4) **Flexible Sanding Disc.** For finishing curved or flat surfaces. For 1/2-in. 24-thread flexible shaft. 5/8-in. rubber pad takes 6-in. sandpaper discs.
84 R 8868 1.49

(5) **Spindle Sander.** Sanding roll hangs 3-in. over end of rubber drum. Rubber sleeve, wood roller for forming paper, and garnet paper included. Fits any 1/2-in. shaft.
84 R 740 1.85

(6) **Garnet Paper.** For spindle sander above. 9x11 sheets. Fine, medium and coarse.
84 R 705—12 sheets 49c

Disc Sanding Sheets. Cloth backed, medium grit. 6-in. diam. for disc above.
84 R 754—Per sheet. 12c 6 for ... 65c

Steel Work Bench Legs. Build your own work bench. Top and cross bars punched for attaching boards; legs punched for bracing. 31 1/4 in. high, 23 in. wide. Heavy 11-ga. angle steel. Welded joints.
84 R 8839—Set of 2 ends 2.89

Saw Horse Joints. Insert lumber in joints. No beveling or bracing necessary. Grippers prevent sway. Malleable iron.
84 R 8892—For use with 1 x 3's. Per Pair 83c 2 Pairs 1.55

84 R 8893—For use with 2 x 4's. Per Pair 1.55 2 Pairs 2.95

STEEL STANDS FOR POWER TOOLS
84 R 8790—Steel stand. Size 13 x 14" on top, by 28 3/4" high. For Band Saws, Bench Saws, or Spindle Shaper. 6.45

84 R 8791—13 x 20" on top, by 28 3/4" high. 6.75

84 R 8792—13 x 47 1/2" on top, 30 1/2" high. For Lathes. 8.65

84 R 8793—13 x 57" on top, 30 1/2" high. Lathes. 8.95

84 R 8909—Rubber feet for all the steel stands. Set of four. 89c

Enjoy a complete workshop! With Wards Time Payment Plan you can probably buy tools and shop equipment together, for the same monthly payment as the tools alone.

THINGS YOU CAN DO WITH A SANDER:—



Belt sanders are used (within their capacity) for doing the sanding operations shown above. They have two distinct advantages over hand sanding: speed and accuracy.

3-INCH BELT SANDER

3x30-inch Garnet Belt
Overall Length 13½-in.
Use with ¼ H.P. Motor

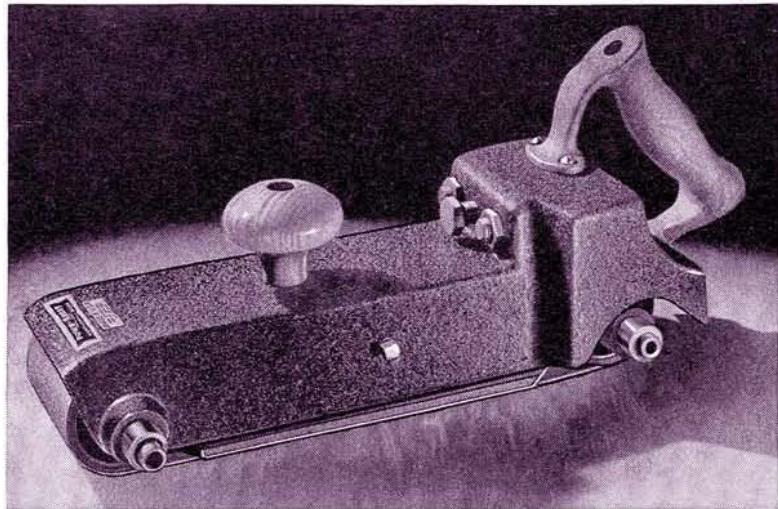
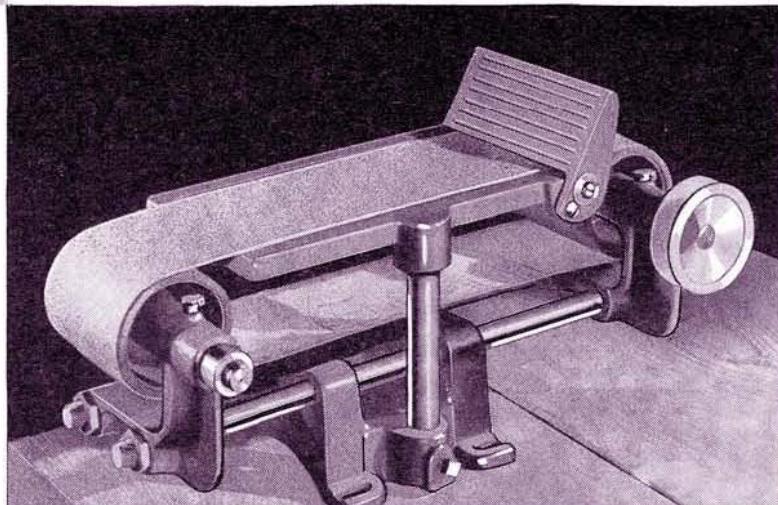
5⁷⁵

Do those tough, monotonous sanding jobs in double-quick time, with this amazingly low-priced sander. Removable stop guard adjusts to 45° angle. Rubber covered crown pulleys grip belt securely. With 2½-inch pulley.

84 R 877 5.75
84 R 780—3x30 Garnet Belt. Coarse, medium, or fine... 39c

POWER SANDERS

at *Rock Bottom* prices!



3-INCH PORTABLE SANDER

For Use with Flexible
Shaft. 3x30-inch Belt.
Overall Length 17-in.

11⁷⁵
\$2 DOWN
\$2 MONTHLY

Leaves no disc marks. Comes ready for use with No. 882 Flexible Shaft (see p. 25). For heavy-duty work, use the adaptor listed below, with No. 881 shaft. Cast aluminum frame and pistol grip handle. Rubber covered crown pulleys.

84 R 879 11.75
84 R 8838—Adaptor for No. 881 Shaft 59c
84 R 780—3x30 Garnet Belt. Coarse, med., or fine... 39c

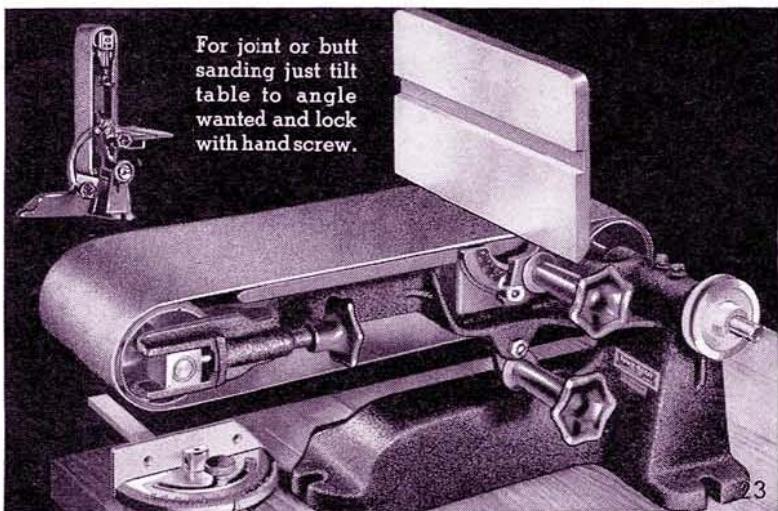
6-INCH BELT SANDER

6x44½-in. Garnet Belt
Overall Length 22-in.
Use with ¼ H.P. Motor

23²⁵
\$3 DOWN
\$4 MONTHLY

A precision sander for heavy duty professional work. Adapts to horizontal, vertical or any intermediate position. Table tilts 45° one way, 15° opposite way. Bronze bearings. With 2½-inch pulley, belt, and miter gauge.

84 R 654 23.25
84 R 790—6x44½-in. Garnet Belt. Coarse, med., fine... 89c



For joint or butt
sanding just tilt
table to angle
wanted and lock
with hand screw.

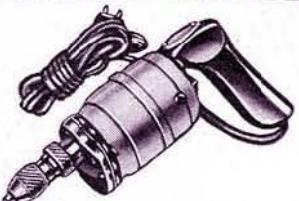
ELECTRIC DRILLS

- JACOBS KEY CHUCKS
- NEW DEPARTURE BALL BEARINGS

• GENERAL ELECTRIC



MOTORS



**1/4-in. Utility
Electric Drill**
895
1/4-IN.

Universal Motor. Has features found only in drills sold for many dollars more! Drills within $\frac{3}{4}$ -in. of a corner. 110-120 volt, A.C. or D.C. Double reduction gear. Self-lubricating bronze bearings. 3-jaw chuck holds drills up to $\frac{1}{4}$ -in. "On-Off" switch in handle. 1500 R.P.M.
84 R 1030 8.95



17⁹⁵
1/4-INCH
\$3 A MONTH

34⁷⁵
1/4-INCH
\$5 A MONTH

47⁵⁰
1/2-INCH SIZE
\$5 A MONTH

GENERAL PURPOSE DRILL

Compare these features with \$22 drills! General Electric Motor. New Departure grease-sealed ball bearings. Precision Jacobs Key Chuck. Heat-treated Chrome Vanadium gears. Pistol grip handle. Runs at 2000 R.P.M. no load, 1600 with full load. For A.C. or D.C. 110-120 volt current. Underwriters' approved cord, plug.
84 R 1018 17.95

HEAVY DUTY DRILL

Pistol grip style. Bigger, heavier, far more powerful than drill at left.

Article Number	Chuck Size	R.P.M. No Load	Ship. Wt.	Cash Price
84 R 1019	$\frac{1}{4}$ in.	2000	11 lbs.	\$34.75
84 R 1032	$\frac{5}{16}$ in.	1400	11 lbs.	37.95
84 R 1020	$\frac{3}{8}$ in.	1300	12 lbs.	38.95

PRODUCTION DRILL

Breastplate style. Over twice the weight of drill at left. Wards best!

Article Number	Chuck Size	R.P.M. No Load	Ship. Wt.	Cash Price
84 R 1021	$\frac{1}{2}$ in.	550	24 lbs.	\$47.50
84 R 1022	$\frac{3}{8}$ in.	480	25 lbs.	52.95
84 R 1023	$\frac{3}{4}$ in.	425	26 lbs.	57.95

BUY NOW, ON WARDS EASY PAYMENT PLAN

PORTABLE ELECTRIC SAWS



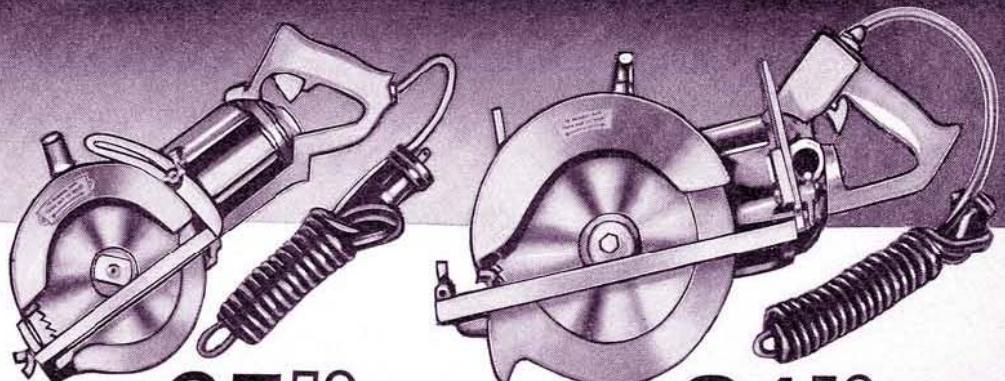
Notching rafters is easy with a portable.



Pays its own way in construction savings.



Makes light work of most difficult cuts.



65⁵⁰
\$6 DOWN
\$6 MONTHLY

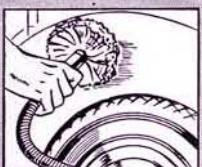
84⁵⁰
\$8 DOWN
\$7 MONTHLY

Here's maximum speed for sawing wood, compositions, soft metals, etc. Plug in wherever there's an electric outlet. Powerful Robbins and Myers Universal 60-cycle, A.C.-D.C. 110-120 volt motors. Crucible steel combination blades. SKF bearings. Two pole instant release switch, 3-wire cord and plug. Detachable rip fence, wrench, grease gun, steel carrying case. Approved guard.

6-Inch Size — Beveling device sets to 45° . Tempered worm gear drive. For light duty work. **7 and 8-Inch Sizes** — Beveling device sets to 60° . Heavy-duty helical and spiraloid bevel gears. Handy built-in sawdust blowers.

Art. No.	Size	Depth Cut	Speed	H.P.	Net Wt.	Ship. Wt.	Cash
84 R 8939	6 in.	0-17 $\frac{1}{2}$	3750 R.P.M.	$\frac{1}{3}$	11 $\frac{1}{2}$ lbs.	20 lbs.	\$65.50
84 R 8940	7 in.	0-2 $\frac{1}{2}$	3600 R.P.M.	$\frac{1}{2}$	21 lbs.	32 lbs.	84.50
84 R 8941	8 in.	0-2 $\frac{1}{2}$	3400 R.P.M.	$\frac{3}{4}$	27 lbs.	42 lbs.	105.00

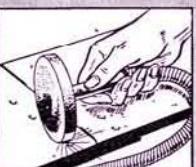
JOBs YOU CAN DO WITH FLEXIBLE SHAFTS:



POLISHING



SANDING



GRINDING

Do polishing, sanding, grinding and drilling by attaching to $\frac{1}{2}$ -inch motor or line shaft. Flexibility makes it easy to work on either large or small projects.

FLEXIBLE SHAFTS



Hole Saw Attachments for Electric Drills

Circular Hole Saw is for use with drills having a $\frac{1}{2}$ -in. or larger chuck size. Cuts clean holes in wood or metal up to $\frac{7}{8}$ -in. deep.

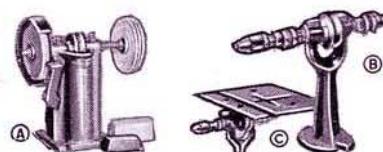
84R647—Mandrel. For all size blades **1.10**

84R648—Blades:

Size	$\frac{3}{4}$	$\frac{3}{8}$	1	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{2}$
Each	79c	79c	79c	79c	79c	79c	79c	79c

84R706—Complete. Mandrel and Blade Set **\$2.25**

84R743—Grinding Arbor. For electric drills. Fits any chuck with a $\frac{1}{4}$ -in. capacity **45c**

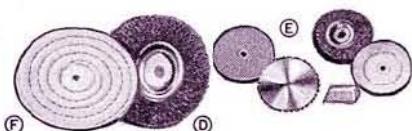


FOR POLISHING, GRINDING

(A) Complete Outfit. $\frac{1}{2} \times 4$ -in. silicate grinding wheel on one end. 4-in. polishing wheel on other. Polishing compound included. $2\frac{1}{4}$ -in. pulley for $\frac{1}{2}$ -in. V-belt. $9\frac{1}{2}$ -in. high. **84 R 9995**. **2.89**

(B) Polishing Head. Tapered spindle for odd arbor sizes. Cast-iron base. 3-jaw, $\frac{1}{2}$ -in. chuck. $1\frac{3}{4}$ -in. V-pulley, $\frac{1}{2}$ -in. shaft. **84 R 9980**. **1.10**

(C) Saw Table for above. 8x8-in. stamped steel. Takes a 4-inch saw. **84 R 9981**. **.65c**



SCRATCH BRUSHES

(D) For removing burrs, polishing welds, etc. Steel wire hardened and tempered. **84 R 6744**. Fine.

UTILITY KIT

(E) 5-pc. Saw, grinding wheel, scratch wheel, buffer, compound. 4-in. diam. $\frac{1}{4}$ -in. hole. **84 R 9982**. **1.25**

(F) Buffing Wheel. 20 layers bleached muslin. **84 R 6742**: Coarse.

84R6743—Coarse

Diam.	Bore in.	Price
4	$\frac{1}{2}$	39c
6	$\frac{1}{2}$	49c

84R6743—Coarse

Diam.	For Hole	Each
4	$\frac{1}{2}$	29c
6	$\frac{1}{2}$	39c
8	$\frac{5}{8}$	49c

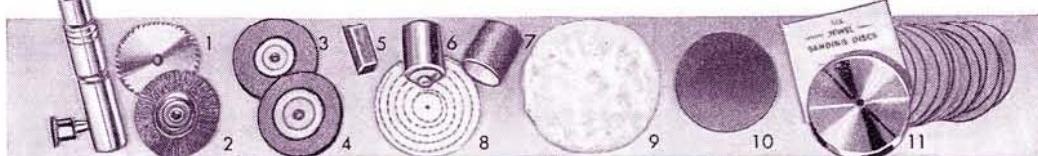
A Workshop in Itself!

13-PIECE OUTFIT

Includes Flexible Shaft, handle and all accessories shown in panel below

875
13 PCS.
No. 898

84 R 882—52-inch Flexible Shaft with an inner core of $\frac{5}{16}$ -inch tempered music wire. Complete with $\frac{1}{4}$ -in. 3-jaw chuck, arbor adapter for $\frac{1}{2}$ -in. 24-thread attachments and handle **4.75**
84 R 883—43-inch Extension for above shaft **2.98**
84 R 898—13-pc. Outfit. No. 882 Shaft with accessories below **8.75**
84 R 751—14-pc. Outfit. No. 898 Outfit plus portable base **13.70**
84 R 749—Portable Motor Base, 3 casters, machined swivel **4.95**



(1) **84 R 8863**—4-in. Saw **45c**
(2) **84 R 6743**—4-inch Coarse Scratch Brush **29c**
(3) **84 R 8516**—4 by $\frac{1}{2}$ -in. Grinding Wheel (Fine) **.33c**
(4) **84 R 8517**—4 by $\frac{1}{2}$ -in. Grinding Wheel (Coarse) **.33c**
(5) **84 R 8864**—Polishing Compound. Each **.12c**
(6) **84 R 704**—Sanding Drum. 3-in. wide **.95c**
(7) **84 R 703**—Sanding Sleeve for drum. Fine, Medium, Coarse **.10c**
(8) **84 R 6742**—6-inch Cloth Wheel. Each **.15c**
(9) **84 R 711**—Sheepskin Buffer **.75c**
(10) **84 R 718**—Rubber Pad. Use with disc **.25c**
(11) **84 R 714**—6-inch Sanding Disc. Threaded **.65c**
84 R 719—Package 6 Sanding Sheets, 6-in. **.25c**

\$10 Purchase Starts a Time Payment Account, Only \$2 Down; Balance Monthly

Wards Heavy Duty

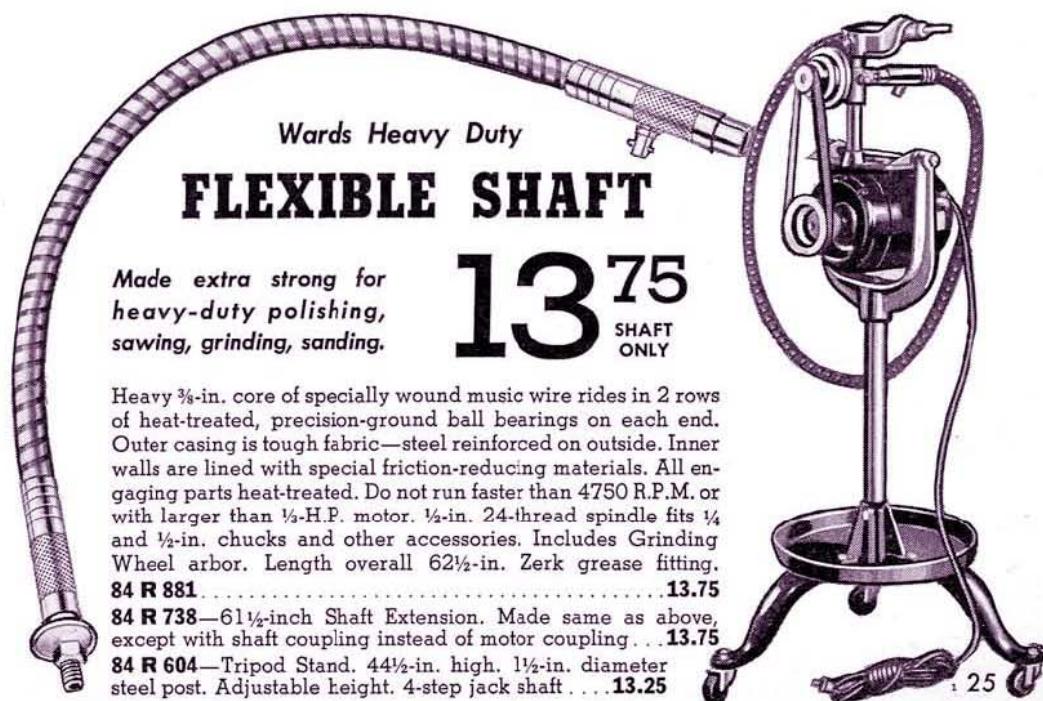
FLEXIBLE SHAFT

Made extra strong for heavy-duty polishing, sawing, grinding, sanding.

1375
SHAFT ONLY

Heavy $\frac{3}{8}$ -in. core of specially wound music wire rides in 2 rows of heat-treated, precision-ground ball bearings on each end. Outer casing is tough fabric—steel reinforced on outside. Inner walls are lined with special friction-reducing materials. All engaging parts heat-treated. Do not run faster than 4750 R.P.M. or with larger than $\frac{1}{2}$ -H.P. motor. $\frac{1}{4}$ -in. 24-thread spindle fits $\frac{1}{4}$ and $\frac{1}{2}$ -in. chucks and other accessories. Includes Grinding Wheel arbor. Length overall $6\frac{1}{2}$ -in. Zerk grease fitting.

84 R 881 **13.75**
84 R 738—61 $\frac{1}{2}$ -inch Shaft Extension. Made same as above, except with shaft coupling instead of motor coupling **13.75**
84 R 604—Tripod Stand. 44 $\frac{1}{2}$ -in. high, $1\frac{1}{2}$ -in. diameter steel post. Adjustable height. 4-step jack shaft **13.25**



HAND TOOLS

with more power per size
than other makes!



PRODUCTION MODEL

Develops maximum power at 10,000 R.P.M. instead of at usual 5000 R.P.M. G-E Universal Motor has a 40-Watt output—about twice that of some others. Grinds, carves, polishes and drills on wood, glass, plastics or metal. Chuck lock on front. Toggle switch. 8 ft. 3-wire safety cord.

Length 6½ ins. Collet chucks takes $\frac{1}{2}$ or $\frac{1}{4}$ -in. diam. bits. Large fan pulls air over motor. 110-Volt, 60-cycle, A.C.-D.C. Motor runs 20,000 R.P.M.

84 R 613—Tool only..... 14.75

34-PC. DELUXE OUTFIT. Includes above hand-tool, 6 wood-cutting burrs, 3 metal-cutting burrs, 8 abrasive points, 1 stone, 1 sanding drum, 6 sanding sleeves, 1 felt wheel, 1 bristle brush, 1 rubber polishing wheel, 2 cutting discs, 1 grinding wheel, 1 combination mandrel for grinding wheel and sanding discs (48 asst. discs included) and hinged heavy gauge steel box.

84 R 612—34 pc. outfit..... 19.95

14.75
TOOL ONLY
\$2 DOWN
\$2 A MONTH

9.75
TOOL ONLY

FEATURE CHECK LIST

	613	630
Max. Output.....	40 Watts	16½ Watts
Speed.....	20,000 R.P.M.	18,000 R.P.M.
Motor.....	General Electric— 110 Volts— 60 Cycle or less AC or DC	General Electric— 110 Volts— 60 Cycle or less AC or DC
Collet Capacity.....	$\frac{1}{2}$ " and $\frac{1}{4}$ " diam.	$\frac{1}{2}$ " and $\frac{1}{4}$ " diam.
Bearings.....	New Depar-ture Ball	Bronze
Brushes.....	SquareCar-tridge Type	Square Car-tridge Type
Insulation.....	Tested at 1000 Volts	Tested at 1000 Volts
Fan.....	Propeller	Propeller
Housing.....	Metal	Bakelite
Over-all Length.....	7"	6½"

STANDARD HAND TOOL

Compare with others' \$18 tools! Drills, grinds, polishes, carves. G-E universal motor develops 16½-Watt output—runs smooth and quiet on self-lubricating, self-aligning bronze bearings. Built-in toggle switch. Collet chucks take $\frac{1}{2}$ or $\frac{1}{4}$ -in. diam. bits. 110 Volt, 60 Cycle, D.C.-A.C. Runs up to 18,000 R.P.M. Overall length 6½ ins. 6 ft. cord.

84 R 630..... 9.75

25-PC. OUTFIT. Includes above hand tool, plus, 2 wood-cutting burrs, 4 metal-cutting burrs, 8 mounted abrasive points, 1 felt wheel, 3 bristle brushes, 1 rubber polishing wheel, 2 carborundum cutting discs, 1 grinding wheel, 1 combination mandrel for grinding wheel and sanding discs (12 sanding discs included), and steel box.

84 R 632..... 13.95

Filterette Eliminates radio interference. Use with hand tools or electric razors.

84 R 8899—(Not pictured)..... 1.00



Wards complete Table Top Shop

Lathe 6x14-in. capacity
Use No. 613 Tool above
84 R 748—Lathe Only 4.95

1. 84 R 747 —Drill Press. 7½-in. capacity	6.25
2. 84 R 741 —Tool Post Holder	1.98
3. 84 R 743 —Router Attachment	4.50
4. 84 R 742 —Bench Stand. Adjustable	3.95
5. 84 R 744 —Shaping Table only. (Use with No. 742)	2.50

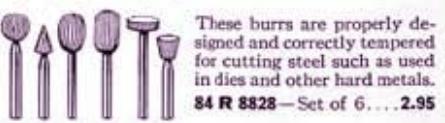
HAND-TOOL DRILL SETS



This set of mill cut burrs are made of tempered tungsten steel. Use for carving wood or any soft material.
84 R 8826—Set of 6..... 1.89



These drills are made of the finest grade tungsten steel. Use for wood, plastics, soft metals, lead, copper and brass.
84 R 8827—Set of 6..... 2.95

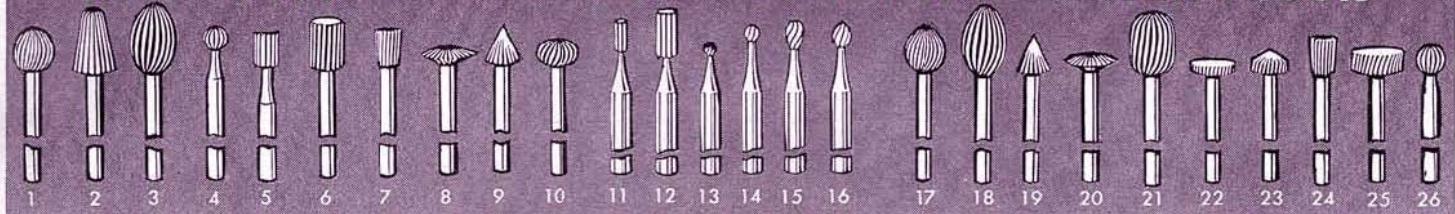


These burrs are properly designed and correctly tempered for cutting steel such as used in dies and other hard metals.
84 R 8828—Set of 6..... 2.95



A ten piece accessory set for grinding, polishing, buffing and cutting. To be used with electric hand tools shown above.
84 R 8829—Set of 10..... 1.65

Individual ACCESSORIES for hand tools



ROUGHING BURRS FOR WOOD AND PLASTICS

These burrs are made of the same high-grade Tungsten Steel as our metal cutting burrs. Caution: These cutters should not be used for cutting steel. $\frac{1}{8}$ -in. shafts.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8827-1	$\frac{3}{16}$ "	$\frac{5}{16}$ "	65c	8827-6	$\frac{1}{4}$ "	$\frac{5}{16}$ "	65c
8827-2	$\frac{5}{16}$ "	$\frac{3}{16}$ "	65c	8827-7	$\frac{1}{4}$ "	$\frac{7}{32}$ "	65c
8827-3	$\frac{1}{4}$ "	$\frac{15}{32}$ "	65c	8827-8	$\frac{3}{8}$ "	$\frac{5}{32}$ "	65c
8827-4	$\frac{13}{32}$ "	$\frac{13}{64}$ "	65c	8827-9	$\frac{1}{4}$ "	$\frac{5}{16}$ "	65c
8827-5	$\frac{3}{16}$ "	$\frac{1}{4}$ "	65c	8827-10	$\frac{1}{4}$ "	$\frac{9}{32}$ "	65c

FINISHING BURRS

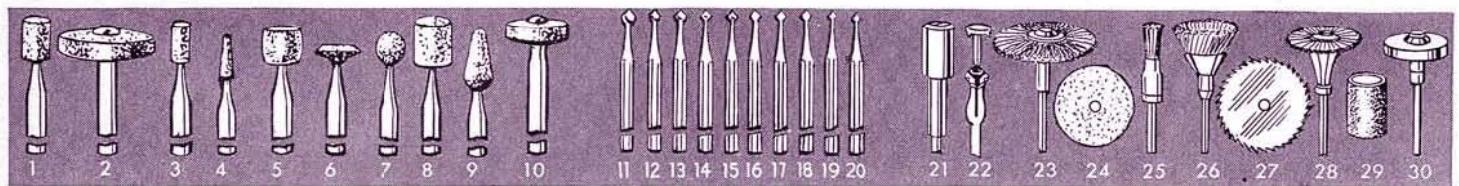
They are made of the same high-grade Tungsten Steel as our larger burrs. For all types of finishing cuts in woods, plastics and soft metals. $\frac{1}{8}$ -inch shafts.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8826-11	$\frac{3}{16}$ "	$\frac{7}{32}$ "	37c	8826-14	$\frac{1}{8}$ "	$\frac{1}{8}$ "	37c
8826-12	$\frac{1}{8}$ "	$\frac{1}{4}$ "	37c	8826-15	$\frac{1}{8}$ "	$\frac{5}{16}$ "	37c
8826-13	$\frac{3}{16}$ "	$\frac{1}{16}$ "	37c	8826-16	$\frac{1}{8}$ "	$\frac{11}{64}$ "	37c

BURRS FOR METAL

They are properly designed from correctly hardened Tungsten Steel. For cutting steel, such as are used in dies, and other metals. $\frac{1}{8}$ -inch polished shafts.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8828-17	$\frac{5}{16}$ "	$\frac{5}{16}$ "	65c	8828-22	$\frac{5}{16}$ "	$\frac{5}{16}$ "	65c
8828-18	$\frac{5}{16}$ "	$\frac{13}{32}$ "	65c	8828-23	$\frac{9}{32}$ "	$\frac{5}{16}$ "	65c
8828-19	$\frac{13}{64}$ "	$\frac{1}{4}$ "	65c	8828-24	$\frac{15}{64}$ "	$\frac{5}{16}$ "	65c
8828-20	$\frac{11}{32}$ "	$\frac{5}{32}$ "	65c	8828-25	$\frac{11}{32}$ "	$\frac{3}{16}$ "	65c
8828-21	$\frac{3}{16}$ "	$\frac{7}{16}$ "	65c	8828-26	$\frac{15}{64}$ "	$\frac{15}{64}$ "	65c



MOUNTED ABRASIVE POINTS

Made of high-quality abrasives. Properly balanced and guaranteed to stay on the shanks. For use on steel dies, moulds and other hard materials. $\frac{1}{8}$ -inch shanks only.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8829-1	$\frac{1}{4}$ "	$\frac{1}{4}$ "	29c	8829-6	$\frac{5}{16}$ "	$\frac{3}{16}$ "	35c
8829-2	$\frac{5}{16}$ "	$\frac{1}{8}$ "	29c	8829-7	$\frac{5}{16}$ "	$\frac{5}{16}$ "	32c
8829-3	$\frac{1}{8}$ "	$\frac{1}{4}$ "	29c	8829-8	$\frac{1}{2}$ "	$\frac{1}{2}$ "	32c
8829-4	$\frac{1}{8}$ "	$\frac{1}{4}$ "	35c	8829-9	$\frac{7}{32}$ "	$\frac{3}{8}$ "	35c
8829-5	$\frac{1}{4}$ "	$\frac{1}{4}$ "	35c	8829-10	$\frac{3}{8}$ "	$\frac{1}{8}$ "	29c

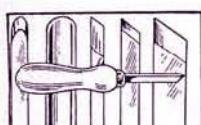
MODELMAKERS DRILLS

These drills are made of high grade Tungsten Steel. Correctly designed and sharpened for high speed drilling of shallow holes in woods, plastics and soft metals.

No.	Diam.	Price	No.	Diam.	Price
8943-11	.035	23c	8943-16	.055	23c
8943-12	.037	23c	8943-17	.065	23c
8943-13	.040	23c	8943-18	.070	23c
8943-14	.045	23c	8943-19	.080	23c
8943-15	.050	23c	8943-20	.090	23c

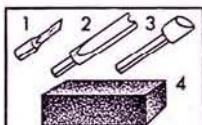
HAND TOOL ACCESSORIES

8776 (21) — Sanding Drum, $\frac{3}{4} \times \frac{1}{2}$ ".....	Ea. 69c	
8789 (22) — Mandrel for Sanding Discs.....	Ea. 65c	
8777 (23) — Extra Heavy Wire Brush, 1-in. Dia.	Ea. 49c	
8945 (24) — Sand paper Disc, $\frac{3}{8}$ "; 8779 (24) — $\frac{7}{16}$ ".....	100 28c	
8782 (25) — Brush, $\frac{3}{8} \times \frac{1}{4}$ "; 8798 (26) — Brush, $\frac{1}{2}$ ".....	Ea. 10c	
8946 (27) — Saw Blade, $\frac{3}{8}$ ".....	8787 (27) — $\frac{13}{16}$ ".....	Ea. 69c
8799 (28) — Bristle Brush, $\frac{3}{8}$ ".....	Ea. 10c	
8786 (29) — Sanding Sleeve for 8776, $\frac{1}{2}$ Grit.....	Doz. 38c	
8778 (30) — Felt Wheel, $\frac{3}{8}$ ".....	Ea. 18c	
8788 — Mandrel for Saws, $1\frac{1}{4} \times \frac{1}{8}$ " (not shown)	Ea. 37c	
8953 — Rubber Pol. Wheels, $\frac{7}{8} \times \frac{1}{8}$ " (not shown)	Ea. 10c	
8954 — Carborundum Discs, $\frac{7}{8} \times \frac{1}{8}$ " (not shown) Doz.	28c	
8955 — Grinding Wheel, $\frac{7}{8} \times \frac{1}{8}$ " (not shown)	Ea. 13c	
8956 — Grinding Wheel Mandrel (not shown)	Ea. 13c	

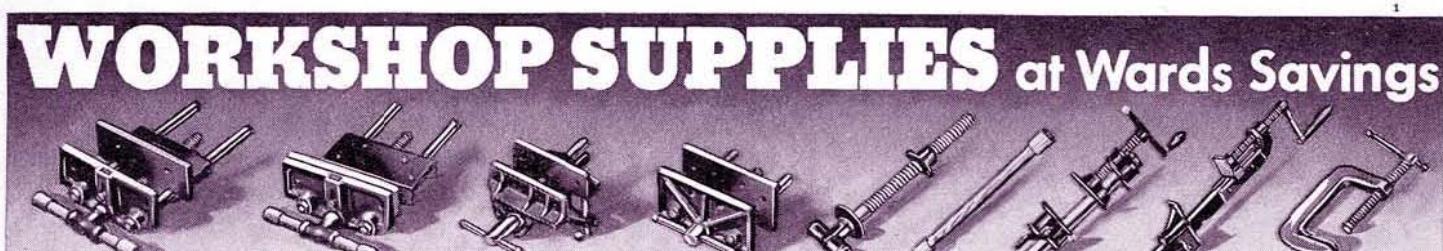


MODELERS CHISELS

$\frac{1}{4}$ " Skew Chisel
 $\frac{1}{2}$ " Skew Chisel
 $\frac{1}{2}$ " Gouge Chisel
 $\frac{1}{2}$ " Round Nose Chisel
Cut-Off Tool Chisel
84 R 642 — Set of 5..... 1.98



No.	Key	Item	Price	No.	Key	Item	Price
8794A	1	Veining Bits— $\frac{1}{16}$	\$.89	8944B	z	Fish Tail Bit— $\frac{3}{16}$	\$1.35
8794B	2	Veining Bits— $\frac{3}{32}$.....	.89	8796A	3	Router Bit— $\frac{1}{8}$	1.15
8795	1	Veining Bits— $\frac{1}{8}$.....	.89	8796B	3	Router Bit— $\frac{3}{16}$	1.15
8944A	2	Fish Tail Bit— $\frac{1}{8}$	1.35	8797A	3	Router Bit— $\frac{1}{4}$	1.15
				8957B	4	Dressing Stone.....	.23



WARD'S FINEST VISE

4.45

WOOD FACE VISE

2.95

AUTOMATIC LOCKING VISE

1.98

BARGAIN VISE

1.35

BENCH SCREWS

1.15

CLAMP FIXTURES

BAR CLAMPS

NICKEL PLATED CLAMPS

84 R 6910 — T-shape notched steel bar $1\frac{1}{2}$ by $\frac{1}{2}$ by $\frac{3}{16}$ in. Stiffer than flat bar. Malleable iron sliding fixtures with $1\frac{1}{4}$ by $1\frac{1}{4}$ by $\frac{3}{16}$ in. surfaces. $\frac{3}{16}$ in. steel screw.

84 R 6904 — Guaranteed unbreakable. Malleable iron. Rust-proof. Extra deep throat yet strength isn't sacrificed. Cold rolled screw. Sliding bar handle gives greater leverage

Opens In. Depth In. Price Each

1	$1\frac{1}{8}$	10c
2	$1\frac{1}{16}$	15c
3	2	25c
4	3	49c
6	$3\frac{1}{2}$	75c

84 R 6834 — For the master carpenter. 10-in. cast-iron front jaw—10-in. wide, with hardwood face. Bench serves as other face. Steel screw and guides, opens 10 inches. Adjustable stop. Cold rolled steel screw and guides.

84 R 6830 — Cast-iron front jaw—anything from $\frac{3}{4}$ to 2 in. thick. Instant locking device. Strong steel rods. Malleable iron $1\frac{1}{2}$ by $5\frac{1}{2}$ in. jaws grip tight. Opens to $3\frac{1}{2}$ in. Black Japanned finish.

84 R 6833 — Clamps to anything from $\frac{3}{4}$ to 2 in. thick. Instant locking device. Strong steel rods. Malleable iron $1\frac{1}{2}$ by $5\frac{1}{2}$ in. Easy operating acme thread screw; two $\frac{1}{2}$ in. diam. steel guide rods. Steel slide handle. Green enamel.

84 R 6898 — Make your own bench vise. Thread of screw, machine cut from cold rolled steel bar. Length abt. 16 in. Hardwood handle.

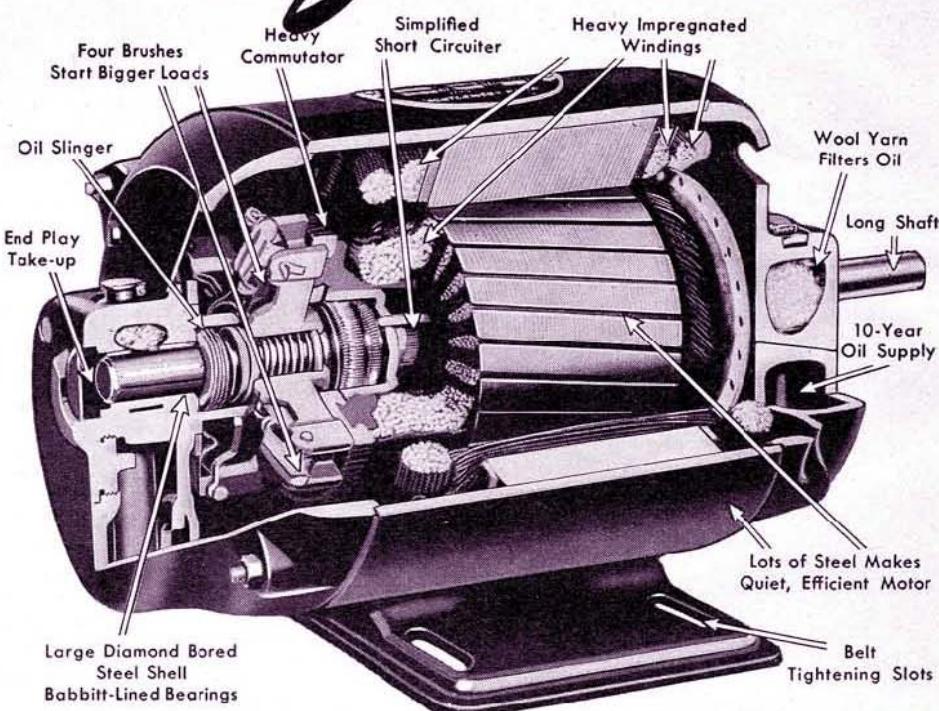
84 R 6907 — For $\frac{3}{4}$ -in. threaded pipe. End fixture adjusted by steel screw. Easily extends to any length depending on pipe. Pipe not included. Semi-steel. Faces $1\frac{3}{4}$ by $1\frac{1}{2}$. Rust-proof enamel finish.

Wards are famous

COMPARE OPERATING RECORDS BEFORE YOU BUY YOUR MOTOR

Buy on the basis of PERFORMANCE! The table below shows FACTS. We urge you to compare them with the records of any similar models, regardless of make or price.

TESTS PROVE SUPERIORITY OF WARDS MOTORS			
Article Number	84 R 9861	84 R 9844	84 R 9820
Type of Motor	1/2-H.P. Split Phase	1/2-H.P. Capacitor	1-H.P. Rep. Ind.
Rated Power	.333 H.P.	.500 H.P.	1.00 H.P.
Maximum H.P. Motor Will Deliver While Running	.850 H.P.	1.30 H.P.	2.95 H.P.
Increase in Temperature After Delivering Rated Power 4 Hours	36° C.	35° C.	18° C.
Watts Used While Delivering Rated Power	390 Watts	540 Watts	1050 Watts
Cost to run per hour, at 4¢ per KWH	Less than 1 1/4¢	Less than 2 1/4¢	4 1/4¢



SPLIT-PHASE MOTORS

For EASY-Starting Jobs

Guaranteed For 2 Years

Single Shaft
1/4 Horsepower
1 yr. GUARANTEE

5⁷⁵

Special **SINGLE SHAFT SLEEVE BEARING MOTOR.** Guaranteed for 1 year. For washing machines, workshop tools, or other easy-starting machines. Not Thermotron equipped. Running speed, 1750 R.P.M. For 110-120 volt, 60 cycle, A.C. **84 R 9793**—1/4 H.P. with 7 1/2-ft. rubber cord and plug.....**5.75**

Use with any machine that starts easily, even though load is heavy after starting. For small woodworking lathes, saws and washing machines. Big overload capacity for short periods—1/4 H.P. develops over 1/2 H.P. before stalling; 1/2 H.P. develops over 3/4 H.P. before stalling. Should motor overheat, Thermotron shuts it off. Shaft 1/2-in. diam. Handy On-Off switch. 7 1/2-ft. cord and plug. 1750 R.P.M. For 110-120 volt, 60 cycle, A.C.

GUARANTEED 2 YEARS

DOUBLE SHAFT SLEEVE BEARING MOTORS. Built for hard daily service. Use horizontal only.

84 R 9854—1/4 H.P. Length overall 12-in....**6.95**

84 R 9855—1/4 H.P. Length overall 13 1/4-in...**8.45**

DOUBLE SHAFT BALL BEARING MOTORS. Use in any position.

84 R 9858—1/4 H.P. Length overall 12-in....**8.75**

84 R 9861—1/4 H.P. Length overall 13 1/4-in...**9.95**



Double Shaft
1/4 Horsepower
2-Yr. Guarantee

6⁹⁵

for MOTORS...

All Ward Motors are GUARANTEED

Every Ward Motor is guaranteed against defects in material and workmanship. If any motor should fail to give the service specified, Wards will repair or replace on a service basis—charging only for the time motor has performed satisfactorily. Repair parts are always available for all Wards motors—26 service stations throughout the United States assure quick repairs at any time.



what Type... what Size do You need?

SPLIT-PHASE MOTORS

Split-phase motors are intended for easy starting loads such as washing machines, power tools, etc. Do not use on water pumps or air-compressors.

CAPACITOR MOTORS

Capacitor motors will handle somewhat heavier starting loads than split-phase motors and use only about $\frac{1}{2}$ the starting current required by split-phase motors.

REPULSION INDUCTION

Repulsion-Induction motors should be used on hard starting jobs such as pumps, compressors, etc. Develop 4 to 5 times rated horsepower for short periods, while starting.

CAPACITOR MOTORS

For MEDIUM-Starting Jobs

Guaranteed For 3 Years

Wards $\frac{1}{3}$ -H.P.
Standard
Capacitor

11⁹⁵
\$2 DOWN
\$2 MONTHLY

Finest for workshop use. Built-in condenser reduces starting current—makes motor start easier and come to top-speed faster. Should motor overheat, safety Thermotron automatically shuts it off. Reset by pushing a single button. Unbreakable slotted steel base. $\frac{1}{2}$ -inch shaft projects 2 inches at each end. For 110-120 volt, 60-cycle A.C. All 1750 R.P.M. except 84 R 9844. $7\frac{1}{2}$ -ft. rubber covered cord, rubber plug.

STANDARD CAPACITOR MOTORS. Similar to DeLuxe split-phase type described at left, but capacitor type—start heavier loads on much lower amperage.

84 R 9846— $\frac{1}{3}$ -H.P. Overall length 13 $\frac{1}{4}$ in. **11.95**

DELUXE CAPACITOR MOTORS. No finer workshop motors made! Has greater overload capacity and starting ability than capacitor motor above. Reversing switch.

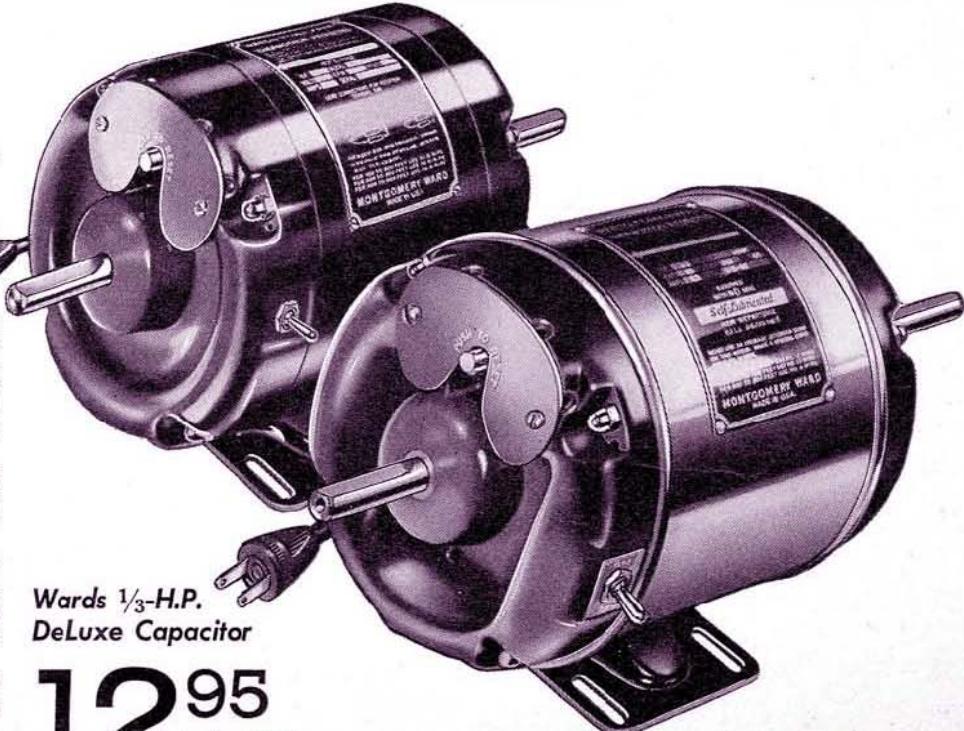
84 R 9843— $\frac{1}{3}$ -H.P. Overall length 13 $\frac{3}{4}$ in. **12.95**

84 R 9842— $\frac{1}{2}$ -H.P. Overall length 14 $\frac{1}{2}$ in. **14.95**

84 R 9844— $\frac{1}{2}$ -H.P. Overall length 13 $\frac{3}{4}$ inches. 3450 R.P.M. Use only where machine must be run over 5000 R.P.M. routers, shapers, etc. **16.75**

Wards $\frac{1}{3}$ -H.P.
DeLuxe Capacitor

12⁹⁵
\$2 DOWN
\$2 MONTHLY



Repulsion Induction Motors

30 1-2-3

3 Year Guarantee

FOR HARD-STARTING MACHINERY

11⁴⁵

1/4-H.P.
Wards Standard

\$2 DOWN, \$2 MONTHLY

14⁷⁵

1/4-H.P.
Wards Deluxe

\$2 DOWN, \$2 MONTHLY

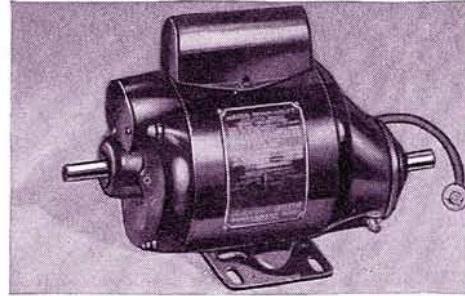
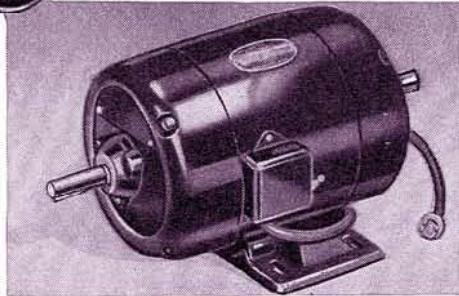
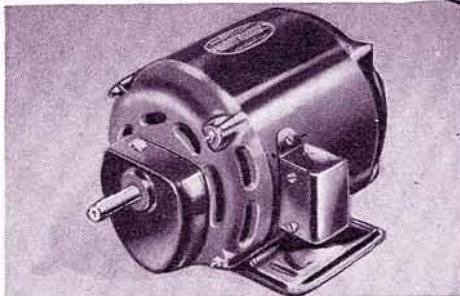
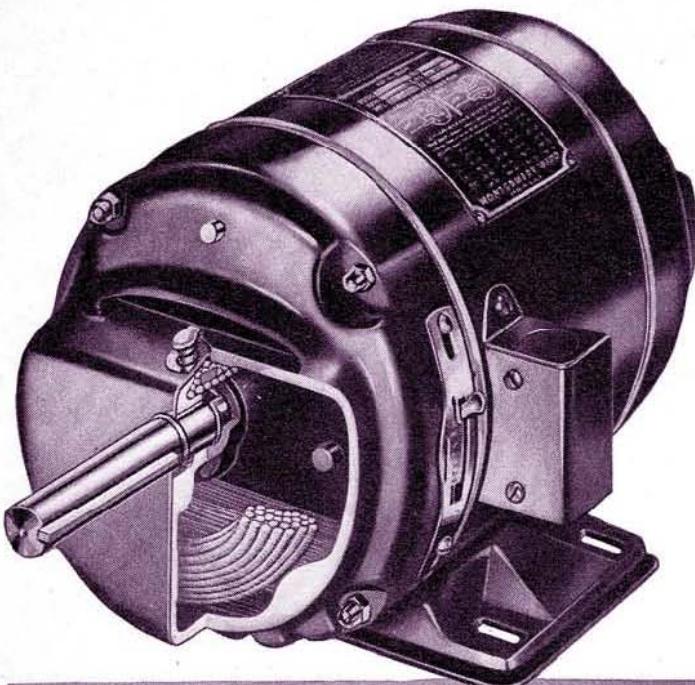
DeLuxe type Thermotron protected against burn-out. Equipped with reversing lever. Modern design frame, fan and air vents for ventilation. Super oil wells (as shown). For water pumps, air compressors, cream separators, and all other hard starting machinery. These motors develop 4 to 5 times rated power for short periods while starting! Single shaft repulsion-induction motors—sleeve bearings. 1750 R.P.M.—110-220 Volt 60-Cycle A.C.

WARDS STANDARD

Article Number	H.P.	Shaft Diam.	Shaft Length	Cash Price
84 R 9819	1/4	5/8"	2"	\$11.45
84 R 9819	1/3	5/8"	2"	15.95
84 R 9819	1/2	5/8"	2 1/4"	19.95
84 R 9819	3/4	5/8"	2 1/4"	27.50
84 R 9819	1	5/8"	2 1/2"	35.95

WARDS DELUXE

Article Number	H.P.	Shaft Diam.	Shaft Length	Cash Price
84 R 9820	1/4	5/8"	2"	\$14.75
84 R 9820	1/3	5/8"	2"	18.95
84 R 9820	1/2	5/8"	2 1/4"	23.45
84 R 9820	3/4	5/8"	2 1/4"	30.95
84 R 9820	1	5/8"	2 1/2"	39.50



REPULSION INDUCTION MOTORS

Article Number	H.P.	Shaft Diam.	Shaft Projects	Cash Price
84 R 9821	1 1/2	1 in.	3 1/4 in.	\$ 47.95
84 R 9821	2	1 in.	3 1/4 in.	59.90
84 R 9821	3	1 in.	3 1/4 in.	79.50
84 R 9821	5	1 1/8 in.	3 3/8 in.	119.50

DOUBLE SHAFT MOTORS

For industrial use. Similar to motors above, but with double shaft and double-grease-sealed ball bearings. 110-220 Volt, 60-Cycle, A.C., 1750 R.P.M. 3/4-in. shaft.

84 R 9813—1/2-H.P. Motor.....\$4 Monthly.....24.95

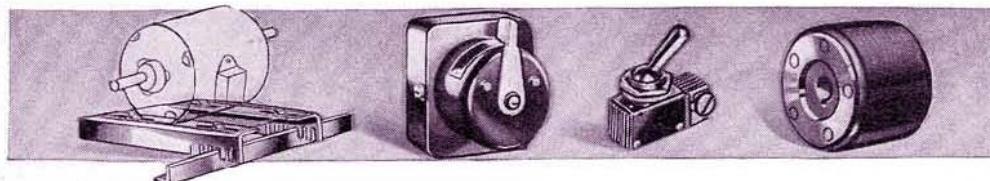
84 R 9815—1/4-H.P. Motor.....\$4 Monthly.....29.95

84 R 9816—1-H.P. Motor.....\$5 Monthly.....39.95

GEAR REDUCTION MOTORS

Use where extra-slow speed is needed—for fruit graders, corn shellers, conveyor belts, etc. Capacitor type. While one shaft runs at 1750 R.P.M. slow-speed shaft runs at 350 R.P.M. 110-120 Volt, 60-Cycle, A.C. Base movable for wall or ceiling mounting.

84 R 9874—1/4-H.P. Motor.....\$4 Monthly.....25.95



ADJUSTABLE MOTOR BASE

Complete Set **55c**

Use one motor with a number of machines. Buy a complete set for the first machine, and extra rails only for each extra machine. The stamped steel rail forms a sturdy, portable base for your motor. You will find many uses for these handy rails. Include them on your Time Payment Order—they will add little or nothing to your monthly payments.

84 R 9827—Set.....55c
84 R 9828—Extra Bench Rails. 19c

REVERSING SWITCH AC or DC **2.95**

Will handle any split-phase or direct current motor up to 1/2-H.P. When used on shaper, reverse cutters and rotation of shaper spindle, and double number of patterns. Overall size about 2 1/2-in. diameter. Instructions included. Shipping wt. 3 lbs.

84 R 9829.....2.95

On-Off Switch. For fractional horsepower motors. Shank fits 1/2-in. hole. Rust-resisting nickel plated finish. 84 R 9946—Wt. 2 oz....25c

FIBER PULLEYS

Slip-proof, heavy-duty, grip the belt better than any other kind—last longer under hard service. Metal core. Fit round or keyed shaft. Order pulley slightly wider than your belt. 84 R 9966.

Size, In.	For Shaft Diam., In.	Price	Distance from Motor to Meter, or Battery					
			100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	400 ft.
1 1/2	1 1/2	1 1/2 or 5/8	\$1.10					
2	2 1/2	5/8 or 1	1.25					
2	2 1/2	5/8 or 3/4	1.47					
2 1/2	2 1/2	1/2 or 5/8	1.59					
2 1/2	3 1/2	5/8 or 1	1.69					
2 1/2	2 1/2	1/2 or 5/8	1.69					
3	3 1/2	5/8 or 1	1.79					
4	3 1/2	3/4 or 1	2.25					
4	4 1/2	1	2.39					

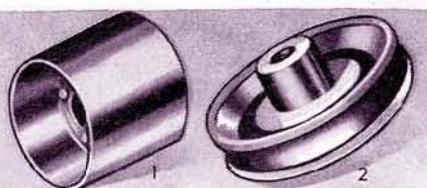
USEFUL INFORMATION ABOUT MOTORS

All motors deliver more power when connected with heavy wire. Do not use ordinary No. 18 extension cord under any circumstances for more than a few feet. To get maximum power from your motor, use wire not lighter than shown in table below.

Power Transmission Equipment

31

AN ORDER OF
\$10.00 OR MORE
MAY BE PURCHASED
ON WARD'S EASY
PAYMENT PLAN



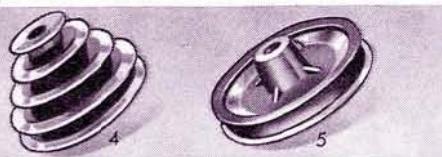
FLAT-FACE PULLEYS

(1) Die cast—high tensile strength. Face slightly crowned. Set screws. 3 by 3-inch pulleys (with $\frac{5}{8}$ and $\frac{3}{4}$ -in. bore) have keyway also. **84 R 9969.**

PRESSED STEEL V PULLEYS FOR $\frac{3}{8}$ OR $\frac{1}{2}$ INCH BELTS

(2) Industrial pulleys for heavy production work. Balanced to run true at all speeds. Bores of $\frac{5}{8}$ -in. and over also have keyways with set screws which fit against key. We can supply only diameters and bores listed in table shown here. **84 R 9999.**

Outside Diam. In.	State Bore In.	Ship. Wt. Lbs. Oz.	Ea.	Outside Diam. In.	State Bore In.	Ship. Wt. Lbs. Oz.	Ea.
2	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	6	35c	6	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	1	8
2 $\frac{1}{2}$	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	9	39c	8	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	2	9
3	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	11	49c	1			\$1.19
3 $\frac{1}{2}$	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	13	57c	10	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	3	4
4	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	15	59c	1			1.49
4 $\frac{1}{2}$	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	1	67c	12	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	4	0
5	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	1	69c	1			1.95
5 $\frac{1}{2}$	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	1	79c	15 $\frac{1}{2}$	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	1	6
							2.98



White Metal "V" Pulleys

(3) 2-step, $\frac{2\frac{1}{2}}$ -in. maximum diameter. $\frac{1}{2}$ or $\frac{3}{4}$ -in. bore. **84 R 9972.** .39c

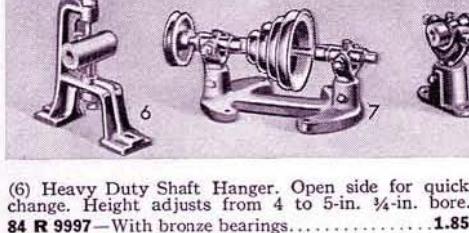
(4) 4-step, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ -in. bore, 4-in. diam. large pulley by $\frac{1}{2}$ " steps. **84 R 9974.** .55c

4-step, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ -in. bore. 5-in. diam. large pulley by $\frac{1}{2}$ " steps. **84 R 9975.** .75c

WHITE METAL "V" PULLEYS

(5) Carefully balanced with accurately built flanges and hub, these pulleys run true at all speeds. White metal of high tensile strength. Designed to take either $\frac{1}{2}$ or $\frac{3}{4}$ -in. V-belts. **84 R 9968.**

Outside Diam.	State Bore, In.	Price
1 $\frac{1}{2}$ in.	$\frac{1}{2}, \frac{5}{8}$	15c
1 $\frac{3}{4}$ in.	$\frac{1}{2}, \frac{5}{8}$	18c
2 in.	$\frac{1}{2}, \frac{5}{8}$	19c
2 $\frac{1}{4}$ in.	$\frac{1}{2}, \frac{5}{8}$	22c
2 $\frac{1}{2}$ in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	23c
3 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	28c
4 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	38c
5 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	45c
6 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	65c
6 $\frac{1}{2}$ in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	69c
8 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}$	\$1.25
10 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}, 1$	1.75
12 in.	$\frac{1}{2}, \frac{5}{8}, \frac{3}{4}, 1$	2.10



(6) Heavy Duty Shaft Hanger. Open side for quick change. Height adjusts from 4 to 5-in. $\frac{1}{4}$ -in. bore. **84 R 9997.** —With bronze bearings. 1.85

(7) Quick Change Jack Shaft increases or decreases speeds without changing pulleys. One $2\frac{1}{2}$ -in. regular and one 4-in. 4-step pulley. Takes $\frac{1}{2}$ or $\frac{3}{4}$ -in. V-Belt. **84 R 9988.** —Complete. 2.75

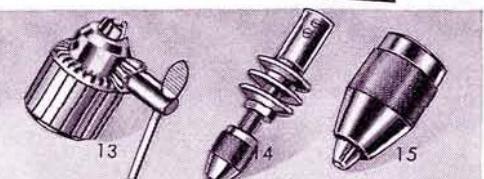
(8) Shaft Hanger. Adjustable up, down or sideways. **84 R 9987.** — $\frac{1}{2}$ -in. bore. .95c $\frac{3}{4}$ -in. bore. 1.15

(9) Steel Shafting. Precision ground to .001 inches. **84 R 9985.** — $\frac{1}{2}$ -in. bore. 25c **84 R 9986.** — $\frac{3}{4}$ -in. bore. 95c

(10) Steel Line Shaft Collars. Screws set flush. **84 R 9984.** — $\frac{1}{2}$ -in. bore. 10c $\frac{3}{4}$ -in. bore. 15c

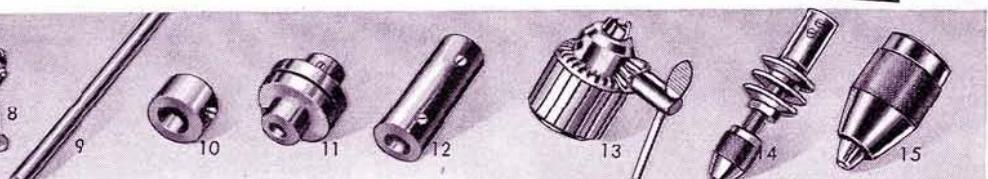
(11) Flexible Couplings. Die cast. Rubber cushions allow flexibility between shafts. **84 R 9970.** — $\frac{1}{2}$ -in. bore. 29c **84 R 9971.** — $\frac{3}{4}$ -in. bore. 39c

(12) Solid Couplings. Extends shaft. 2 inches long. **84 R 9983.** — $\frac{1}{2}$ -in. bore. 19c $\frac{3}{4}$ -in. bore. 29c



Round Belting. Strong oak-tanned leather. For sewing machines and small power tools. With couplings.

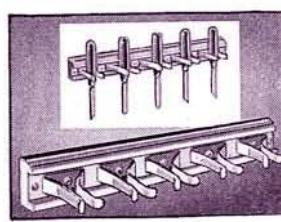
84 R 9973. — $\frac{1}{4}$ -in. .7c ft. $\frac{5}{16}$ -in. .9c ft. $\frac{3}{8}$ -in. 12c ft.



(13) Jacob's Chuck. Improved precision-type found on most industrial equipment. Capacity $\frac{1}{16}$ to $\frac{1}{2}$ -in. Fits any $\frac{3}{8}$ -in. diameter spindle. 16 threads to the inch. **84 R 8850.** —Chuck with key. 5.25

(14) Motor Arbors with 3-jaw chuck for $\frac{1}{2}$ -in. shafts. Hold wheels with $\frac{1}{2}$ -in. arbor holes, any thickness up to $\frac{1}{4}$ -in. **84 R 9977.** — $\frac{1}{2}$ -in. capacity Chuck. 75c **84 R 9976.** — $\frac{1}{2}$ -in. capacity Chuck. 95c

(15) 3-Jaw Chucks only. For $\frac{1}{2}$ -in. spindle. 24 threads per inch. Also fits flexible shafts. **84 R 8890.** — $\frac{1}{4}$ -in. 29c $\frac{1}{2}$ -in. 55c



HANDY TOOL CLIPS

Made of special spring steel, for holding lathe chisels and other workshop tools. Each clamp drilled for mounting.

84 R 753. —Set of 6. 25c

Convenient Table of Speeds

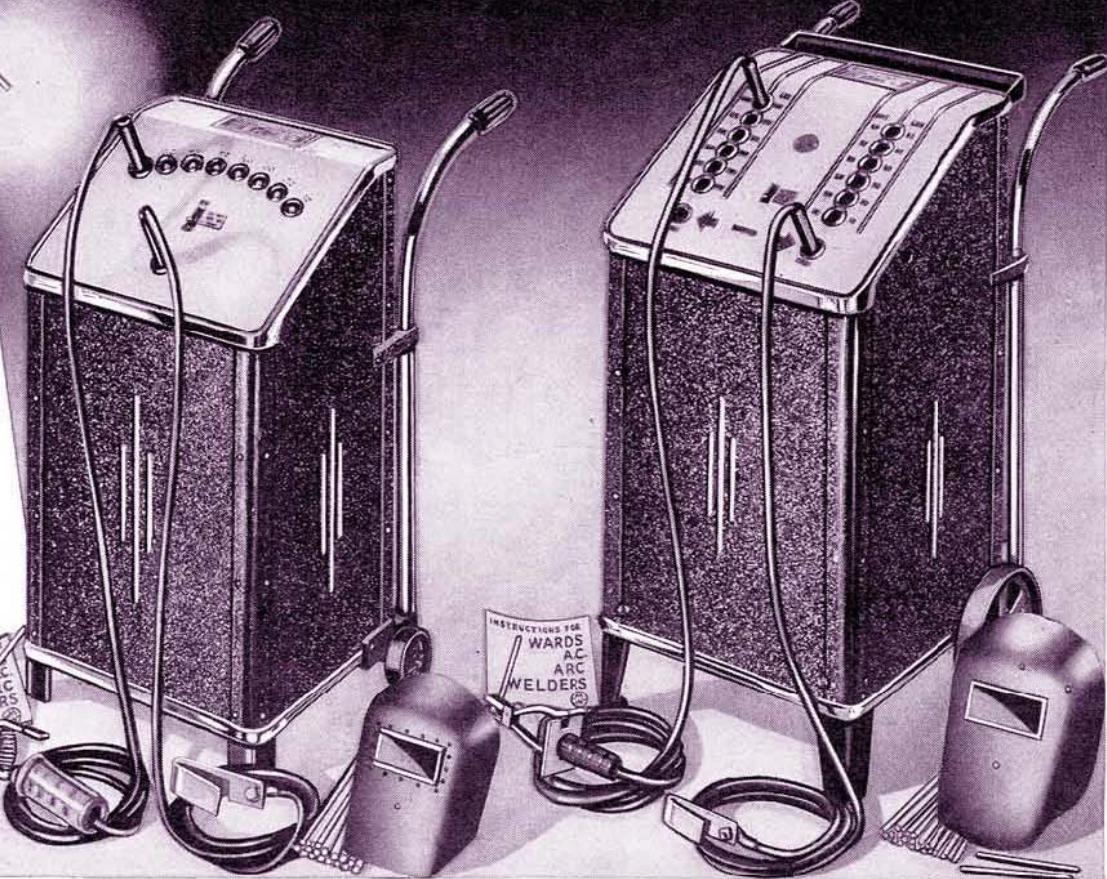
This handy table shows at a glance the approximate speed of the pulley on any machine with different pulley sizes on the motor shaft. These are correct when belt is at proper tension, and are based on a free motor speed of 1750 R.P.M.

Size, In. Motor Pulley	Size, In. of Pulley on Machines														
	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	3	4	5	6 $\frac{1}{2}$	8	10	12	15	18
1 $\frac{1}{2}$	1725	1435	1230	1075	950	860	715	540	430	330	265	215	175	140	115
1 $\frac{1}{2}$	2065	1725	1475	1290	1140	1030	860	645	515	395	320	265	215	170	140
2	2400	2000	1725	1500	1340	1200	1000	750	600	460	375	315	250	200	165
2	2775	2290	1970	1725	1530	1375	1145	860	685	530	430	345	285	230	190
2 $\frac{1}{2}$	3100	2580	2200	1930	1725	1550	1290	965	775	595	485	385	320	255	213
2 $\frac{1}{2}$	3450	2870	2460	2150	1900	1725	1445	1075	860	660	540	430	355	285	240
3	4140	3450	2950	2580	2290	2070	1725	1290	1070	800	615	515	430	345	285
4	5500	4570	3940	3450	3060	2775	2295	1725	1375	1060	850	690	570	460	380
5	6850	5750	4920	4300	3825	3450	2865	2150	1725	1320	1075	860	715	575	475
6 $\frac{1}{2}$	8950	7475	6400	5590	4975	4480	3730	2790	2240	1725	1400	1120	930	745	620
8	....	9200	7870	6900	6125	5520	4600	3450	2750	2120	1725	1375	1140	915	765
10	....	9850	8620	7670	6900	5750	4300	3450	2650	2150	1725	1430	1140	950	780
12	....	....	9200	8280	7690	6160	4130	3180	2580	2070	1725	1380	1140	950	780
15	....	....	....	....	8635	6470	5170	3970	3230	2580	2150	1725	1430	1140	950
18	....	....	....	....	....	7750	6200	4770	3880	3100	2580	2070	1725	1430	1140

Wards A.C. Arc Welders

TESTED QUALITY!

Underwriters' have approved the 85, 150, 225, and 325 Amp. models. This is your assurance that insulation will stand 1900 volts; transformer will not heat over 55° C. in $\frac{1}{2}$ hour, and that the welders are properly protected against all hazards.



85-AMP. UTILITY WELDER 110 VOLT, 60-CYCLE A.C.

Above at left **48⁹⁵**
\$5 DOWN
\$5 A MONTH
COMPLETE

Output 10 to 90 Amps. 80 Amp. N.E.M.A. Rating. 8 welding heat taps. Maximum power used 1.8 K.W. Maximum Line Draw 30 Amps. Handles up to $\frac{1}{4}$ -in. Electrodes. Used by Tinnery, Radiator and Fender Shops. Welds tin-plate, cast-iron and steel to $\frac{1}{16}$ -in. thick. Case 14 by 14 $\frac{1}{2}$ by 27 in. high. For welding only, not for cutting. Complete with accessories shown above.

84 R 6594.....48.95

150-AMP. SHOP WELDER 220 VOLT, 60-CYCLE A.C.

Above at left **89⁹⁵**
\$8 DOWN
\$8 A MONTH
COMPLETE

Output 10 to 185 Amps. 140 Amp. N.E.M.A. Rating. 16 welding heat taps. Maximum power used 3.2 K.W. Maximum Line Draw 30 Amps. Handles up to $\frac{3}{16}$ -in. Electrodes. Used by Plumbers and Garages for welding pipes, blocks, gears, fenders, etc. Welds or cuts tin-plate, cast-iron or steel up to $\frac{3}{16}$ -in. thick. Case 14 by 16 by 28 $\frac{1}{2}$ in. high. Complete with accessories shown above.

84 R 6596.....89.95

225-AMP. INDUS. WELDER 220 VOLT, 60-CYCLE A.C.

Above at right **141⁵⁰**
\$12.50 DOWN
\$10 A MONTH
COMPLETE

Output 10 to 300 Amps. 200 Amp. N.E.M.A. Rating. 24 welding heat taps. Maximum power used 4.8 K.W. Maximum Line Draw 45 Amps. Handles up to $\frac{1}{2}$ -in. Electrodes. Used by Blacksmiths and Garages for heavy machinery, farm implements, auto body and fender repairing. Welds or cuts tin-plate, cast-iron or steel up to $\frac{1}{2}$ -in. thick. Case 18 by 18 by 29 $\frac{1}{2}$ in. high.

84 R 6597—Complete Outfit.....141.50

325-AMP. PROD. WELDER 220 VOLT, 60-CYCLE A.C.

Above at right **234⁵⁰**
\$25 DOWN
\$14 A MONTH
COMPLETE

Output 10 to 416 Amps. 295 Amp. N.E.M.A. Rating. 28 welding heat taps. Maximum power used 8.8 K.W. Maximum Line Draw 60 Amps. Handles up to $\frac{5}{16}$ -in. Electrodes. Used by Heating and Building Contractors for heavy structural welding—in factories for production welding. Welds or cuts tin-plate, cast-iron or steel to $\frac{3}{16}$ -in. thick. Case 19 by 26 $\frac{1}{2}$ by 40 $\frac{1}{2}$ in. high.

84 R 6598—Complete Outfit.....234.50

Portable A.C. Arc Welding, Brazing and Soldering Outfit

50 Amp., 110 Volt, 60-Cycle A.C.

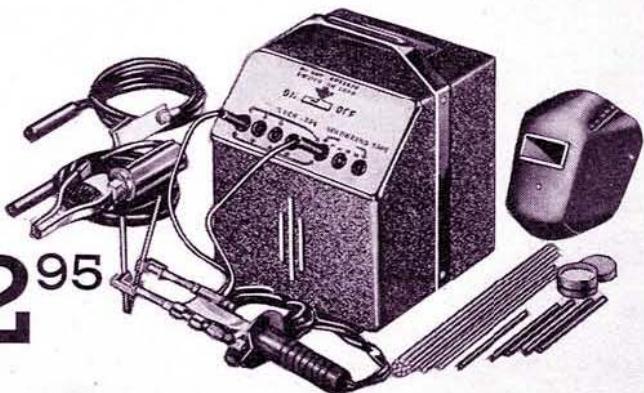
Output.....10 to 64 Amperes
N.E.M.A. Rating.....45 Amperes
Welding Heats.....4 Taps
Maximum Power used.....1.7 K.W.
Maximum Line Draw.....25 Amperes
Handles up to $\frac{3}{16}$ -inch Electrodes.

A complete outfit for light welding, brazing, soldering, body filling and lead burning with 4 welding, 3 soldering and 3 twin carbon Arc Torch Taps designed especially for tinnery, radiator, battery and fix-it shops. Plug into any wall outlet—welds to $\frac{1}{4}$ -in. thickness. Case 10 $\frac{1}{2}$ by 11 $\frac{1}{2}$ by 14 inches high.

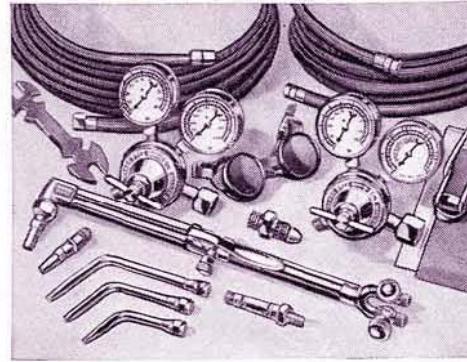
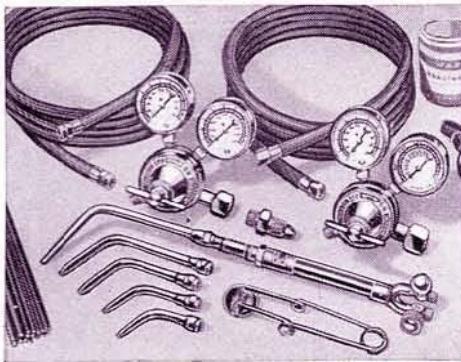
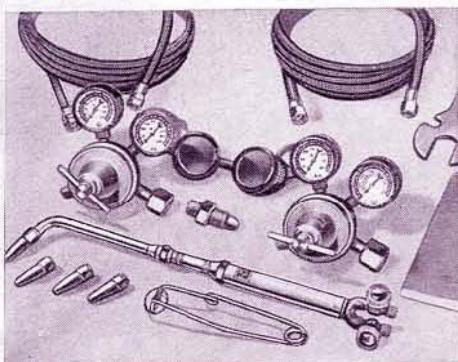
84 R 6593—Complete as shown.....32.95

32⁹⁵

COMPLETE
\$4 DOWN
\$5 MONTHLY
CARRYING CHARGE



WARDS UNDERWRITERS-APPROVED OXY-ACETYLENE OUTFITS



Lakeside Welding Outfit

\$50 Value! Built by
America's leading manufac-
turer of Welding Equipment

3295
COMPLETE
\$5 A MONTH

Torch and regulators listed by Underwriters' Lab., Inc. Outfit includes: *Welding Torch*, fixed length. Equal pressure, non-flash. 17-in. length overall. Bronze forged with lightweight, balanced brass handle. Welds up to 1½-in. metal. Cuts steel with 84 R 6535 cutting attachment. *Four Welding Tips*, drawn copper. Sizes B1-3-5 and 7. *Oxygen Regulator*, forged brass bonnet with large 3-in. diaphragm. Short inlet connection. 2-in. gauges with 80 and 3000-lb. dials. Double cone inlet screens keep out sediment. *Acetylene Regulator*, same as oxygen but has 50 and 500-lb. dials. With adaptor for all standard acetylene welding cylinders. *Welding Hose*, single braid live rubber—won't crush, red and green 12½-ft. lengths, ½-in. inside diam. *Accessories*: Torch lighter, goggles, wrench and instruction book. **84 R 6520**.

Wards Finest Welding Outfit

Compare \$75 outfits!
Nozzle type tips have
longer flame range.

4895
COMPLETE
\$5 A MONTH

Torch and regulators labeled and listed by Underwriters' Lab. Inc. Outfit includes: *Welding Torch*, variable length. Equal pressure. Non-flash mixer handles all size tips. Bronze forged black ribbed handle. Length 14 to 19-in. Welds up to 2-in. metal. Cuts steel with 84 R 6535 Cutting Attachment. *Five Welding Nozzle Tips*: Sizes T1-3-5-7 and 9. *Oxygen Regulator*, forged polished brass. 2½-in. 100 and 3000-lb. gauges. Shows cu. ft. contents of tank. "On-Off" feature. Double cone inlet screens. *Acetylene Regulator*, has 50 and 500-lb. gauges. With adaptor for all standard acetylene welding cylinders. *Welding Hose*, double braid live rubber. Red and green 12½-ft. lengths, ¼-in. inside diam. *Accessories*: 24 Asst. Welding Rods, 2 cans Flux, goggles, lighter, wrench, instruction book and manual. **84 R 6530**.

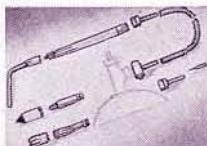
Cutting and Welding Outfit

Welds up to 2 in.
metal. Cuts steel up
to 10 in. thick.

6145
COMPLETE
\$6 A MONTH

Usual price elsewhere about \$105! Welding torch, cutting attachment and regulators labeled and listed by Underwriters' Laboratories, Inc. A combination cutting and welding—allows you to do both cutting and welding—has double utility. Complete outfit includes: *Welding Torch*, same type as in Wards finest Welding Outfit at left. *3 Welding Nozzle Tips*, solid drawn copper. Sizes T-3-5-7. *Cutting Attachment*, same as 84 R 6535 described below. *2 Cutting Tips*, solid drawn copper. Sizes C-1-3. *Oxygen Regulator*, same as in Wards finest Welding Outfit at left. *Acetylene Regulator*, same as in Wards finest Welding Outfit at left. *Welding Hose*, 25-ft. lengths—red and green, ¼-in. inside diameter. *Accessories*: torch lighter, goggles, wrench, instruction book and manual. **84 R 6525**.

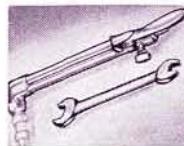
ACCESSORIES FOR OXY-ACETYLENE WELDING EQUIPMENT



BRAZING OUTFIT
No Oxygen
Needed!

595

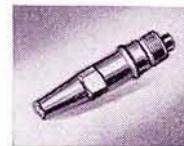
Connect to any acetylene tank. Outfit includes tips, hose, cleaner, connections and instructions. **84 R 6539**



CUTTING ATTACHMENT

Cuts steel up
to 10-in. thick.

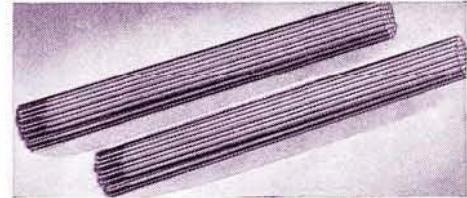
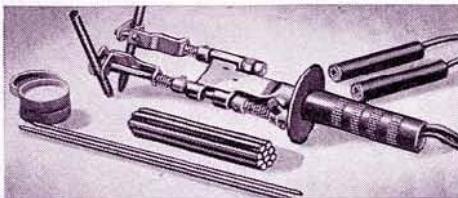
Converts welding torches above into cutting torches. 10½-in. length. Order tips shown at right. **84 R 6535**.



CUTTING TIPS

Tip Size (84R6537)	Cap. Cut	Price
C-1	to 1 -in.	\$2.15
C-2	to 2½-in.	2.15
C-3	to 6 -in.	2.15
C-4	to 10 -in.	2.15

ACCESSORIES FOR ELECTRIC ARC-WELDING EQUIPMENT



A.C. Twin-Carbon Arc Torch!

Revolutionary new electric arc torch that opens an entirely new field for Arc Welders! Enables electric arc welders to create a flame for pre-heating, brazing, hard surfacing and soldering. Makes possible welding of aluminum, white metal, copper and other non-ferrous metals formerly possible only with gas torches. Twin-Carbon Torch is 13½-in. long—handles carbons up to ¾-in. diameter. With 10-ft. cables and jacks for use with Wards Arc Welders. Use with 84 R 6587 Carbons at right. *Important: Specify Article Number or Model Number of Ward Machine formerly purchased. Lugs furnished for use with other makes of A.C. arc welders by attaching to ground clamp and electrode holder. Specify make of machine. Accessories included: 12 assorted, 6-in. copper-coated, cored Carbon Rods; two ½ by 18-in. Bronze Brazing Rods; 1-oz. Box of Brazing Flux; Instructions.*

84 R 6585—Carbon Arc Torch complete with accessories **10.95**

Miscellaneous Accessories

84 R 6587—Copper-Coated Electric Arc Carbon Rods. For use with Twin Carbon Torch (at left), for brazing, hard surfacing, etc. Cored for a stable, metallic arc. ¼ by 6-in....10 for **80c** ⅜ by 6-in....10 for **85c** ⅝ by 6-in....10 for **1.10**

84 R 6578—Plain Electric Arc Carbon Rods. Use with electrode holder for welding, cutting. ¼ by 6-in. 10 for **50c**

84 R 6579—Welding Helmet. Adjustable, fiber helmet to protect eyes. Replaceable arc-proof lens protected by clear-cover lens.....**3.25**

84 R 9002—Receptacle. For No. 6596-6597 arc welders. Rated at 50 amps., 250 volts. Each.....**2.00**

84 R 9003—Polarized Plug, to fit receptacle. Each **2.25**

84 R 9004—Rubber Covered Cord. Two No. 6 and one No. 10 ground wire. For above plug and receptacle. Per foot.....**22c**

Coated Welding Electrodes

84 R 6574—For Mild Steel Welding—A.C. or D.C.

For better quality, more ductile welds. Easier to weld in difficult positions. Best for 110-volt A.C. machines and on galvanized or painted metal where it is difficult to strike and maintain an arc.

84 R 6572—For Mild Steel Welding—A.C. or D.C.

High speed production electrodes. For single pass welding and poor fit-up. Best for 220-volt or any A.C. welding machines approved by Underwriters' Laboratories, Inc. Also D.C. machines on straight polarity.

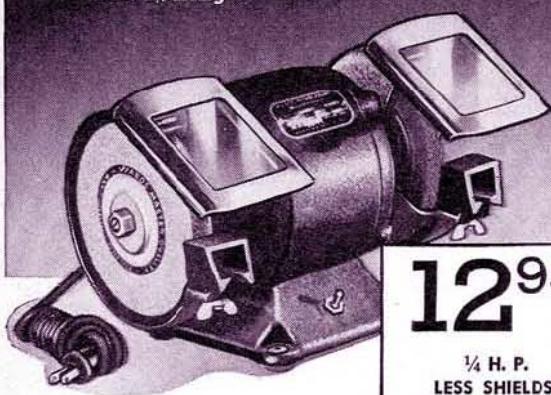
84 R 6577—For Cast-Iron Welding—A.C. or D.C.

Diameter	Length, Inches	Quantity	Price
⅜-in.	About 18-in.	1-lb.	28c
⅛-in.	About 14-in.	1-lb.	20c

Electric-driven Ball-Bearing Bench Grinders

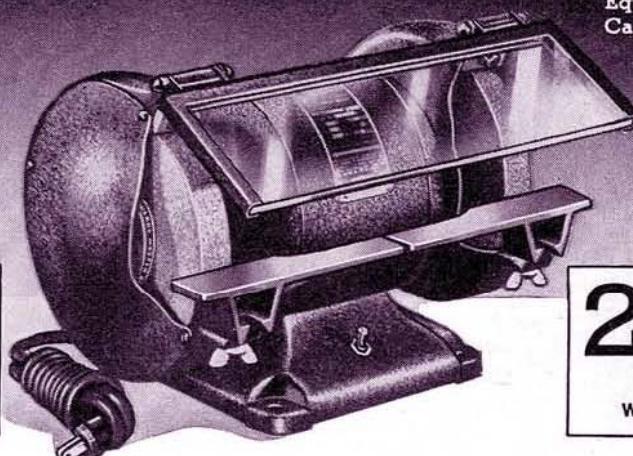
Both Models
Ball Bearing

Thermotron
Equipped Motor
Can't Burn Out



12⁹⁵

1/4 H.P.
LESS SHIELDS



22⁹⁵

1/3 H.P.
WITH SHIELD

1/4-H.P. Bench Grinders

Ideal for the home or farm workshop. Quickly puts an edge on dull sharp edge tools of all kinds, smooths-off welding jobs, etc. Fully enclosed motor runs at 3450 R.P.M. under a full load. "On-Off" switch in base. With grease sealed New Departure Ball Bearings, adjustable tool rests, removable guards, 6 ft. cord and plug, and two Master Quality vitrified wheels, 1/4 by 6-in.—1 medium and 1 fine grit. 1/2-in. diam. shaft. Black crackle finish. For 110-120 Volt, 60-Cycle, A.C.

84 R 6756—1/4-H.P. Bench Grinder without safety glass shields **12.95**

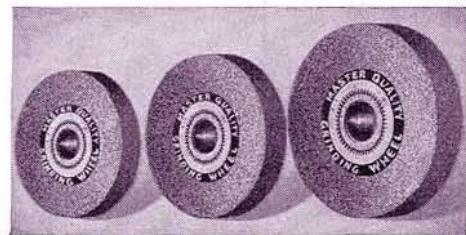
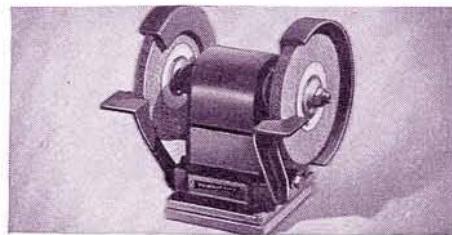
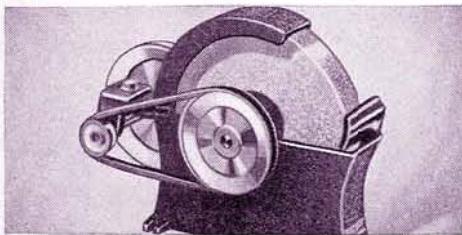
84 R 6757—With safety glass shields as illustrated **14.45**

Industrial Bench Grinders

Shop owners! Garage owners! Here's the most practical, modern grinder in America; so well designed, so heavy, so powerful you won't believe its price ticket. Built to American Abrasive Safety Code Requirements. Has grease-sealed New Departure Ball Bearings. Motor starts as a split phase, runs as an induction, at 3450 R.P.M. under full load. With full length adjustable tool rests, adjustable wheel guards and 2 Master Quality vitrified wheels, 1 medium and 1 fine grit. "On-Off" switch in base. 5/8-in. diam. shaft. 7 1/2-ft. cord and plug. For 110-120 Volt, 60-Cycle, A.C.

84 R 6758—1/3-H.P. Grinder, with 3/4 by 7-in. wheels **22.95**

84 R 6759—1/2-H.P. Grinder, with 1 by 7-in. wheels **29.95**



Slow Speed Grindstone

For water grinding.
Won't draw temper.
Runs at 125 R.P.M.

795

Grinding wheels included
at this low Ward price.
Compare.

For sharpening hand tools, knives, etc., to a fine, keen edge. Jack-shaft reduces speed. Has double adjustable tool rest and bronze bearings. 5/8-inch shaft. Use 1 1/4-in. V-Pulley on 1/4-H.P. Motor, 1750 R.P.M. 84 R 891.

Both the wheels and drive pulley are fully guarded. 5/8-inch spindle (1/2-inch arbor) runs on self-lubricating bronze bearings. One coarse, one fine, 6-inch grinding wheel. With tool rests. 84 R 886

495

Vitrified Grinding Wheels

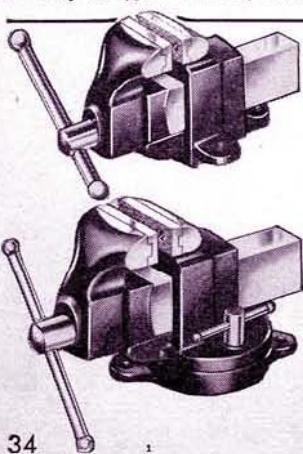
None finer made! Dressed
on both sides and face for
balance.

**65c AND
UP**

84 R 8501—Fine grit.

84 R 8500—Medium grit.

Thickness	4-in. Diam.	5-in. Diam.	6-in. Diam.	Thickness	4-in. Diam.	5-in. Diam.	6-in. Diam.
5/8-in. 1-in.	65c 75c	\$1.05 98c	1.25	5/8-in. 1-in.	65c 75c	\$1.05 98c	1.25



Machinists' Vises Solid or Swivel Base

3 1/2-IN. JAWS
SOLID BASE

5⁹⁵

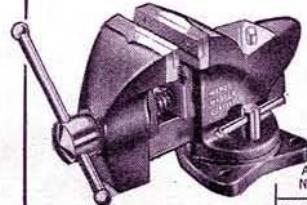
Replaceable jaw faces, heavily serrated for slip-proof grip. Semi-steel body.

- 84 R 6800—Solid. 3 1/4-in. jaw. Opens 5-in. **.55.95**
- 84 R 6801—Solid. 4-in. jaw. Opens 6-in. **7.45**
- 84 R 6802—Solid. 4 1/4-in. jaw. Opens 6 1/2-in. **8.95**
- 84 R 6805—Swivel. 3 1/4-in. jaw. Opens 5-in. **7.95**
- 84 R 6806—Swivel. 4-in. jaw. Opens 6-in. **9.75**
- 84 R 6807—Swivel. 4 1/4-in. jaw. Opens 6 1/2-in. **11.45**

Master Quality Garage Vises

3-IN. JAWS
SWIVEL BASE

2⁸⁹



Article Number	Width Jaws Open	Takes Pipe	Weight Lbs.	Each
84 R 6316	3 in. 3 1/2 in.	4 1/4 in. 4 1/2 in.	1/2 to 1 1/4 in.	14 \$2.89
84 R 6317	3 1/2 in.	4 1/2 in.	1/2 to 1 1/2 in.	18 3.75
84 R 6818	4 in.	5 1/4 in.	1/4 to 1 3/4 in.	25 5.95

JOIN



MONTGOMERY WARD & COMPANY

NATIONAL HOME WORKSHOP CLUB

OFFICIAL CLUB CERTIFICATE

This Certifies that, in accordance with Club regulations

has satisfactorily completed two or more home workshop projects of acceptable quality, and is hereby enrolled as an active craftsman-member of Montgomery Wards National Home Workshop Club for the year 1941.

1941

MONTGOMERY WARD & CO.

FREE PLANS every month!

Join the thousands of National Home Workshop members who are getting more fun than ever out of wood-working. Every month you will receive a free plan of some worthwhile project. Some of them are valuable furniture pieces. Others are knick-knacks which require some uncommonly used technique. All plans are complete—they show every step in the construction, from the selection of the wood to the finishing. Double your shop-pleasure . . . join the National Workshop Club.

JOIN NOW! Here's all you do:

- 1** Get your application blank and instruction book at Wards. Nothing to buy—anyone can apply for membership.
- 2** Make two projects to qualify for membership. Projects may be of your own design, or made from magazine plans.
- 3** When your two projects are completed, have two friends (not relatives) witness your work and sign application.
- 4** Upon receipt of your Application Blank, Wards will send you an Official Club Certificate and an Identification Card, which entitles you to plan-of-the-month privileges.

Montgomery Ward & Co.



START YOUR
WORKSHOP WITH

WARDS TIME PAYMENT PLAN

SMALL DOWN PAYMENT
BALANCE MONTHLY

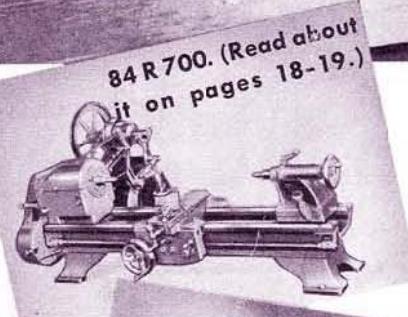
HOW TO OWN A WORKSHOP

Wards Time Payment Plan will help you to own a workshop, just as it has helped thousands of other fellows. And a far more complete workshop, with finer quality tools than you might otherwise be able to buy! Because if you have only a few dollars in cash to spend, it is far wiser to use them as a down payment on some really fine tools than to purchase just one low-priced tool which may soon prove inadequate for your needs.

Start your shop right! Plan to set aside a few dollars every month regularly to build-up a fine PLANNED WORKSHOP. It's one of the best investments you can make. Why not list the tools and accessories you want? Then ask Wards salesman what the payments will be. If you can't purchase the entire workshop now, you can at least buy the major part of it. In no time, without drawing money from the bank, you'll have your complete PLANNED WORKSHOP. Begin planning today!



84 R 621.
Complete
description
on page 14.



84 R 700. (Read about
it on pages 18-19.)



84 R 761.
(See this
NEW Saw
on page 7 of
this book.)

OF COURSE, ALL POWR-KRAFT TOOLS
CARRY THE MONEY-BACK GUARANTEE OF

MONTGOMERY WARD
AND COMPANY, INCORPORATED